JPRS-CAG-86-017

29 APRIL 1986

China Report

AGRICULTURE

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-017
29 APRIL 1986

CHINA REPORT
AGRICULTURE

CONTENTS

PEOPLE'S REPUBLIC OF CHINA

NATIONAL

PRC Agricultural Bank Borrows From Foreign Commercial Banks
(CHINA DAILY, 16 Apr 86) 1

China's Future Grain Production Needs Surveyed
(Wang Zhiqiang, Fang Yupeng; NONGYE JINGJI WENTI, 23 Sep 85) 2

PRC Drafts New Law To Combat Water Shortages
(Wu Jingshu; CHINA DAILY, 17 Apr 86) 9

Questions on Rural Economic Policy Discussed
(BANYUE TAN, No 4, 25 Feb 86) 11

Rural Credit Cooperatives Increase
(Su Beihai; NONGMIN RIBAO, 15 Nov 85) 15

Fishery Official Discusses Aquatic Products, Fish Supply
(Beijing Domestic Service, 13 Apr 86) 17

Fishery Industry Plans Increase in Output by 1990
(Guo Zhongshi; CHINA DAILY, 12 Apr 86) 19

Statistics on State Farm Procurement, Sales
(ZHONGGUO NONKEN, No 11, 24 Nov 85) 21

Briefs
- Rapeseed Output, Sales 25
- Increased Canned Goods Sales 25
- Tea Production 26
- Control on Imported Sugar 26
- Sugar Production To Increase 26
- Computers' Boost to Agriculture 26

GANSU

Development Plans To Fit Potential of Different Regions
(Qui Jing; NONGMING RIBAO, 25 Jan 86) 27

GUANGXI

Guangxi Hemp Production Begins To Recover From Slump
(Huang Zheng; NONGMIN RIBAO, 16 Nov 85) 29

GUIZHOU

Favorable Changes in Guizhou Timber Market
(Liu Cheng; ZHONGGUO XIANGZHEN QIYE BAO, 20 Nov 85) 30

HEILONGJIANG

Heilongjiang Reduces Peasants' Financial Burdens
(Li Fulai; NONGMIN RIBAO, 4 Nov 85) 32

HENAN

Revisions in Rural Credit Policy Urged
(Xu Jiafu; HENAN RIBAO, 28 Feb 86) 34

Henan Increases Aquatic Output
(He Shuiju; NONGMIN RIBAO, 29 Oct 85) 37

Farm Machine Market Boom To Continue
(Guo Qinghua; ZHONGGUO NONGJIHUA BAO, 26 Jan 86) 39

HEBEI

Interview on New Water Conservation Regulations
(Zhang Ziming Interview; HEBEI RIBAO, 20 Jan 86) 41

Briefs

Hebei Cotton Exports 44

JILIN

Jilin Report on Economic, Social Development Plan
(Li Decheng; JILIN RIBAO, 23 Mar 86) 45

Prices Deregulated on Non-Export Timber
(ZHONGGUO XIANGZHEN QIYE BAO, 20 Nov 85) 49

Agricultural Tax Reduced Because of Disasters
(Song Xunfeng; NONGMIN RIBAO, 30 Oct 85) 50

SHAANXI

Agriculture Thriving in Shaanxi Province
(SHAANXI RIBAO, 6 Nov 85) 52

Sales Forecast for Agricultural Use Vehicles
(Qin Xin; ZHONGGUO NONGJIHUA BAO, 26 Jan 86) 54

Briefs

Grain Prices Rising 55

SHANGHAI

Shortage of Soybeans in Shanghai Area
(NONGMIN RIBAO, 9 Nov 85) 56

SICHUAN

Increased Exports of Livestock Products
(SICHUAN RIBAO, 2 Nov 85) 57

More Housing Being Built for Sichuan Peasants
(Wang Zihe; SICHUAN RIBAO, 1 Nov 85) 59

ZHEJIANG

Zhejiang Rural Households Increase Income
(XINHUA, 31 Mar 86) 61

ABSTRACTS

VETERINARY SCIENCE

ZHONGGUO SHOUYI KEJI [CHINESE JOURNAL OF VETERINARY SCIENCE AND TECHNOLOGY], No 11, 20 Nov 85 62

PRC AGRICULTURAL BANK BORROWS FROM FOREIGN COMMERCIAL BANKS

HK160504 Beijing CHINA DAILY in English 16 Apr 86 p 2

[Text] The Agricultural Bank of China has borrowed millions of dollars through international monetary organizations and foreign banks for China's rapidly developing agriculture and rural enterprises, according to a bank official.

Ren Lichang, deputy director of the bank's external affairs department said this was the first time the bank had borrowed from foreign commercial banks.

The International Development Association [IDA] of the World Bank is providing more than $143 million in loans to help agricultural development, processing, storage and transport in underdeveloped areas under three agreements signed between the Agricultural Bank of China and the association since 1982.

Two of the agreements, involving a total of $93 million, were signed in 1985, Ren said in Beijing. Already, $18 million of IDA loans had been put to use, he said.

The International Fund for Agricultural Development is also providing loans worth $25 million, according to an agreement signed with the Agricultural Bank. Besides, the Nordic Investment Bank has agreed to provide China with 5 million Swiss francs in buyer's credit to assist two state farms in Hebei Province to buy equipment from Finland, according to an agreement signed with the Agricultural Bank in 1985.

Meanwhile, Citibank of the U.S. had expressed willingness ot offer the bank $300 million in long-term loans, Ren disclosed. Discussions are now under way.

Banks in Austria, West Germany, Japan, Australia and Finland had also shown interest in providing loans to the bank, the deputy director said.

/9738
CSO: 4020/282

CHINA'S FUTURE GRAIN PRODUCTION NEEDS SURVEYED

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 9, 23 Sep 85 pp 8-11

[Article by Wang Zhiqiang [3769 1807 1730] and Fang Yupeng [2455 3768 7720], Bureau for Regulation of the Economy, State Statistical Commission: "Proposal To Insure Steady Growth in Grain Output"]

[Text] With the implementation of Central Committee Document No 1 for 1985, a series of heartening changes has taken place in China's rural economic situation. The structure of rural industry has gradually become more rational; lateral relationships in the rural economy have been strengthened further; socio-economic benefits from agricultural production have risen, and the entire rural economy is poised in the direction of pervasive healthy development. In the process of development, however, some noteworthy new situations and new problems have also arisen. Among them have been some arresting changes that have taken place in grain production during 1985. Everyone is universally concerned right now with whether it is necessary, in view of the changed situation during 1985, to readjust countermeasures correspondingly. Views are also not entirely unanimous on this issue. A discussion of some of our views is provided below.

Changes This Year

As a result of readjustments to the structure of rural industry and institution of new policies on grain procurement during the year, some noteworthy changes occurred in China's grain production. Taken together, these changes were in the following regards. One was signs of a decline in peasant enthusiasm for growing grain. Extrapolations from representative samplings show that the area sown to grain crops this year may be several percent less than last year, making it the year of greatest decline in recent years. In some places, farmland has been left uncultivated. Second has been a reduction in peasant material investment in grainfields. Sales of chemical fertilizer during the first half of this year were much lower than for the same period last year, and everywhere a situation of slack sales and accumulation in inventory of chemical fertilizer occurred. In some places seedlings were transplanted without any fertilization. In addition, peasants have been lax about tending grainfields. Third has been changes in proportions of grain crops planted, with a decline in the proportion of high yield crops. In the south, less indica rice and wheat was grown and more japonica, barley used in making beer, broad beans and peas were grown. In the north, less corn was grown and more wheat and miscellaneous grains were grown. This change should be said to be entirely normal. Fourth fixed grain procurement contracts did not fulfill state plan, a situation arising in which the peasants did not want to sign contracts.

The aforementioned changes bring the following directly in their wake. First, grain yields per unit of area and gross output may both be less than last year. Second, year-end national grain receipts will definitely suffer, first of all because the amount of grain that the state has been able to order this year was less than last year, and secondly because there may be a slight increase in the amount of grain paid out. Increases in grain payouts may result principally from readjustments to the structure of rural industry and support for road construction in mountain areas.

Evaluation of Trends in Grain Production

Opinions differ as to how to deal with changes in this year's grain production and their effects. Though this year's grain output may be somewhat reduced, in terms of current year supply it will not be so bad that it causes a grain shortage. On this point there is unanimous agreement. The divergence of opinion is about the level at which grain output should be maintained during the next 2 or 3 years, and whether it is necessary to watch the next 2 or 3 years to insure steady growth of grain production or whether some action should be taken at once.

Some comrades believe that if grain output for the country as a whole is maintained at the 1983 level for the next 2 or 3 years, a balance between supply and demand for grain will be achieved and , even if the grain output figures for 1984 are not maintained, no new shortage situation will occur and there is no need to take any further action.

Other comrades maintain that grain production is affected by natural factors and the production cycle, that it is intimately related to the people's standard of living, and that it is a special commodity that differs from other commodities. Ability to achieve steady growth in grain production has a direct bearing on social order and steady development of the national economy. China's output of grain currently stands at only 791 jin per capita, which is lower than the world average. Furthermore in 16 provinces and regions, grain output is lower than the national average. For several tens of million people, the problem of sufficient food and clothing has not yet been solved. For the next several years population will increase by between 12 and 13 million annually, and both changes in the diet and development of animal husbandry will require increased grain production. Compared with developed countries, China still has a long way to go. China does not have much grain; it has very little. Consequently, grain production positively cannot be treated lightly. Emphasis still has to continue to be placed on maintaining the grain growing area fairly stable while trying to increase yields per unit of area. Grain output has to reach between 900 and 920 billion jin by the year 2000 in order to be able to meet the basic needs of all. This requires a 2 percent annual increase in gross output of grain during the Seventh Five-year Plan period.

Gross output of grain for 1986 must maintain the 1984 level at the very least and should increase slightly.

How can steady growth of grain production be maintained? Some comrades have proposed making fixed purchase grain contracts quotas of a directive nature that all jurisdictions must fulfill. Other comrades believe that 1985 "inverted 30 to 70 percent" proportional prices are lower than real 1984 price's, and they recommend raising the purchase price suitably. Still other comrades suggest unrestricted purchases at the "inverted 30 to 70 percent" proportional price, and many comrades have proposed a lowering of procurement prices for some cash crops to cause a shift to the growing of grain.

We believe that the Chinese people are currently in process of changing their died from having enough to eat to eating well, and that the amount of demand for grain is affected by these changes in diet. Changes in diet are affected, in turn, by the rise in the people's level of consumption. Prices for fresh and live agricultural and sideline products have been opened up this year, and prices of meat, poultry and eggs have risen in varying degrees. In order to insure that there is no decline in the standard of living of the broad masses of people, the state provides a certain amount of subsidies to consumers. This year wage reforms will be carried out and then consumers income will increase. Production of meat (mostly pork) has now begun to rise again, but it is difficult to forecast whether or not consumption will also rise. A look at the situation in 1984 shows that most of the increased purchasing power of urbanites went for durable consumer goods, for industrial manufactures used in daily life, and remained in residents' pockets. It is still too early to forecast whether whether last year's difficulty in selling grain will turn into this year's difficulty in selling hogs and selling pork. However, there are already some clues, and with the beginning of the busy season for live hogs about to arrive, this problem should be given attention.

Just how much grain will society require during the next several years? It is difficult to say precisely right now. The extent to which demand for grain may change mostly as a result of changes in diet has yet to be charted accurately. Calculations made from random samplings show that from 1978 through 1984 grain consumption increased by approximately 24 billion jin annually, reaching 740 billion jin in 1984. Though no great changes in diet will occur in 1985 or 1986, it will still be necessary to increase grain output by 24 billion jin annually to 764 billion jin in 1985 and 788 billion jin in 1986. Inasmuch as grain consumption is not likely to decrease suddenly, and in view of the effect of the elements on grain production that give rise to fat years and lean years, we believe that in overall terms of reform of the economic system, forecasts about the amount of grain needed should be enlarged somewhat to allow a certain amount of needed leeway. Thus, it will still be necessary in the future to emphasize continue firm grip on grain production.

Whether some major actions will have to be taken in 1986 is largely a question that has to do with whether fixed procurement contracts provide the amount of grain needed in 1986. The crux of whether fixed procurement contracts for grain can be carried out lies in the 1985 autumn grain harvest. The situation right now suggests no major problems with the fixed procurement of summer grain in 1985. Not only are fixed procurement contracts likely to be fulfilled, but additional grain will probably be available for sale at market prices. The following table compares country fair market prices with "inverted 30 to 70 percent" proportional prices in several major wheat growing areas during early May 1985:

Place	Country Fair Market Price (Yuan/100 jin)	Inverted 30 to 70 Percent Proportional Price (Yuan/100 jin)
Hebei	23.00	23.36
Heilongjiang	24.00	22.55
Jiangsu	21.00	21.20
Anhui	22.00	21.30
Shandong	25.00	22.63
Henan	23.00	22.53
Average	23.00	22.26

Generally speaking, the country fare market price of wheat is close to and just a little higher than the proportional price. Once the new wheat crop is in, it is expected that the country fair market price will decline a little. Thus, wheat procurement at the "inverted 30 to 70 percent" proportional price will not be a very large problem this year.

The difficulty is with the autumn grain harvest. The 1985 reduction in area planted applies mostly to the autumn grain growing area, and weather has a substantial effect on the autumn grain harvest causing inconsistent output. The country fair market price of autumn grain during the last half of 1985 will have a direct bearing on how well fixed procurement grain contracts are carried out in 1986. As of now, two different situations may arise. One is that pork consumption will not rise making it difficult to sell hogs. Peasant enthusiasm for raising hogs will fall and they will want to sell grain. Once the autumn grain reaches markets, the country fair market price will be close to the "inverted 30 to 70 percent" proportional price. In that case, fixed procurement grain contracts for 1986 can be carried out. The other situation is that once autumn grain reaches markets, the market price will be higher than the "inverted 30 to 70 percent" proportional price, with the result that some peasants may not be willing to sign contracts for 1986. Should this situation occur, it will mean only that peasants do not want to sign contracts, but there will be no decline in enthusiasm for the production of grain. Output of autumn grain in 1986 may increase. At that time, country fair market prices will slide and it will be possible for the state to purchase grain at either the "inverted 30 to 70 percent" proportional price or at the prevailing market price, making it possible to fulfill grain procurement quotas in this way.

On the basis of the foregoing analysis, we believe that consideration should be given to taking no major action on the 1986 grain issue. Were fixed procurement of grain by contract to be made a plan that is in the nature of a directive, that would be bad for readjustment of the structure of rural industry and for future reform of prices of agricultural products. Raising prices and unrestricted purchases would be bad both for making full use of the market mechanism and for getting the peasants to respond to market demand more quickly and better. It would also increase the burden on the central treasury.

We believe that it will take 3 years of readjustments for agricultural production to meet market demand. With 2 to 3 years of practice, peasants will gradually become familiar with market laws and market demand, and functioning of the market mechanism will gradually make more rational both the structure of rural industry and the proportions of various agricultural products. As a result of practice, we will also find some demarcation lines as a basis for regulating direction. When that time comes, our work may become more active.

Several Suggestions

In view of the 1985 grain production situation and in order to insure steady growth in future grain production, consideration should be given to the use of some indirect regulatory methods.

1. Appropriate hike in grain allocation and transfer prices among provinces and regions. Prevailing grain allocation and transfer prices among provinces are made up of previous monopoly procurement prices plus operating expenses, the gap between monopoly procurement prices and "inverted 30 to 70 percent" proportional prices being borne by the central government treasury. The result is that many provinces and regions clamor to increase the amount of grain brought in from elsewhere. Not only does this result in an inequitable flow of grain, but it adds to numerous unnecessary transportation burdens. Thus, in the process of readjusting the rural industrial structure, there has to be an equitable regionalization of agricultural goods production, and these distorted price relationships have to be ironed out. This is the only way to help make the most of regional strengths and to do the most with long suits while avoiding short suits.

It is suggested that finances and grain be linked as the basis for instituting a contract system for allocations and transfers of grains, all grain contracted for being priced at the "inverted 30 to 70 percent" proportional price plus operating expenses. Increases in in-shipments of grain above and beyond contracted requirements can be ordered by the province from the state at negotiated prices or may be ordered from other provinces or counties at negotiated prices, the increased expense to be borne by the province. Consideration may also be given to having the central treasury allot to the grain-importing province of the difference between the "inverted 30 to 70 percent" proportion and the monopoly procurement price on the basis of the amount contracted. Ordering at negotiated prices is to be instituted for transfers of grain into a province. All provinces may either place orders at negotiated prices with the state or with other provinces and counties. The aim should be for that portion of grain under state plan gradually to be concerned only with strategic reserves and regulation of supply and demand. This will both help make more rational regional grain production patterns and will also help some provinces and regions reduce some of their unnecessary in-shipments of grain and increase the province's own grain production, all of which will help stabilize grain production, reduce pressures on transportation and alleviate the burden on the central government treasury.

2. Downward adjustment of prices of some cash crops for which the supply is greater than the demand and reduction of the areas sown and amount of these crops to bring about a corresponding increase in the area sown to grain crops. The price of cotton in cotton growing areas of north China should be lowered appropriately so that peasants will produce less cotton and shift their production to grain or to other cash crops. Consideration should also be given to the appropriate lowering of procurement prices paid for jute, amberi hemp and flue-cured tobacco in conjunction with other measures to restrict the growing area and shift to the growing of grain of of other cash crops.

3. Insure the availability of loans needed to procure agricultural and sideline products and for agricultural production in 1985 in order to protect peasant enthusiasm for grain production. Right now agricultural credit is tight everywhere and IOU's for the purchase of agricultural and sideline products have piled up. This year's reduction of peasant investment in agriculture is directly related to the shortage of farm credit as well. Unless this state of affairs is solved with all possible speed, it will inevitably impair future peasant enthusiasm for growing grain. Everything possible must be done to solve the problem of loans for the procurement of agricultural and sideline products and for agricultural production. These credit funds should be specially controlled, dedicated for special use and not be diverted to other uses in order to insure that procurement of agricultural and sideline products proceeds smoothly.

4. Strict control of takeovers of cultivated land for construction. Ill-advised and rampant takeovers of cultivated land have appeared again since the last half of 1984. Rough calculations made by the Ministry of Farming, Animal Husbandry and Fishery Bureau of Land Management show a reduction during 1984 of nearly 20 million mu of cultivated land throughout the country versus a 7 to 8 million mu increase the year before. This situation has continued during 1985. Reduction in cultivated land ultimately exerts pressure on the grain growing area. Corresponding stability of the area sown to grain requires maintaining fairly stable the cultivated land area.

For this reason, land management organizations should be set up and improved at every level. They should follow the principle of saving every inch of soil in the formulation of land use plans, set up a strict land examination and approval system and carry out supervision and inspection. Consideration should also be given to the collection of funds for the restoration of land from units that take over land (including peasants). This money should be used mostly for bringing wasteland under cultivation, for farmland capital construction, and for the improvement of agricultural production conditions.

5. Improvement of the grain contract procurement system. Most of the peasants who grow grain today have little education, poor skills and insufficient funds. Their ability to adapt to markets is low. In order to relieve their genuine hardships, when the state signs contracts with them, the state should bear corresponding obligations. Consideration should be given to link ups to orders for grain procurement, making down payments in advance of procurement or selling on credit to peasants of the means of agricultural production such as chemical fertilizer, pesticides or fine quality seeds as well as providing technical services so as to relieve some of their genuine hardships.

6. Simultaneous with readjustment of the structure of rural industry and the shift of rural workforces should be a gradual centralization of grain fields in the hands of those who are skilled in farming them, and expansion of the scale of farming, and an increase in peasants' income. Nowadays, the growing of grain does not pay as well as the growing of cash crops, and the growing of cash crops pays less than working in industrial sideline occupations or doing business. Overly low earnings from the growing of grain is the main reason for decline in peasant enthusiasm for growing grain. Proper expansion of the scale of farming by peasant households and the launching of multiple uses of resources can increase peasant earnings. A survey done in Sichuan Province shows a net income of 107 yuan per mu of paddy farmed, and a single worker is able to farm only 2 or 3 mu of land. Were a single worker able to farm 6 or 7 mu of land, earnings would be approximately 700 yuan and this would not be low at the present time.

7. Good performance in food processing, development of the livestock feed industry and increasing grain consumption. The diet of people in cities and the countryside of China is in process of going from having enough to eat to eating well. Accompanying these changes in diet is a gradual increase in the proportion of fine rice and fine wheat processed foods in the diet. This means greater consumption of grain and can also mean a reduction in time spent on household chores. Active development of the livestock feed industry will help improve hog varieties, lower fodder waste and increase economic benefits from raising hogs. In addition, it will better satisfy the consumption needs of city and country residents alike and bring about a greater and better transformation of grain.

8. Genuine strengthening of leadership of grain production. Any relaxation of leadership of grain work is wrong. Leaders at all levels should place the grain issue on their important daily agendas and take a regular interest in it. They should also diligently organize rural cadres for re-study and appreciation of the spirit of Central Committee Document No 1 and associated policies, provide a clear understanding of the important significance of contract procurement on readjustment of the structure of rural industry and promotion of coordinated development of the rural commodity economy, putting into effect grain contract procurement quotas.

To summarize, on the grain issue there is no need for worry, first of all, and preparations have been made, second of all. For the next several months, market activity will have to be watched closely, changes in diet this year and the possible extent of changes in grain will have to be surveyed and understood. Data will have to be provided for future readjustment of pertinent policies. In addition, study will have to be devoted to the establishment of a system for the regulation of grain production in order to avoid major rises and falls in grain production, to give impetus to making regional crop patterns more rational, and to realize steady growth of grain production.

9432
CSO: 4007/117

NATIONAL

PRC DRAFTS NEW LAW TO COMBAT WATER SHORTAGES

HK170800 Beijing CHINA DAILY in English 17 Apr 86 p 1

[Article by staff reporter Wu Jingshu]

[Text] China is taking steps to solve its critical water shortage by drafting a State Water Law to regulate overall consumption and by launching an urgent conservation drive.

In Beijing, the mayor has called upon every citizen "to do his or her best" in the drive up to the next rain season. Most of the capital's rain falls in late summer.

The water shortage in Beijing has worsened this year, and the city's two main reservoirs in Miyun and Guanting now hold a total of only 1.33 billion cubic meters of water--just 20 percent of their capacity.

Facing daily consumption of 1.5 to 1.6 million tons, the city expects to be short of 200,000 to 300,000 tons daily this summer, Vice Mayor Zhang Baifa told an emergency conference yesterday.

The city government has drawn up an urgent conservation program to restrict industrial and agricultural consumption of piped or ground water in the capital, while urging residents to cut domestic consumption, Zhang told the conference presided over by Mayor Chen Xitong, six other vice mayors and Chu Chuanheng, Vice Minister of Urban and Rural Construction and Environmental Protection.

Beijing municipality has also announced it will allow the water company to raise the price for industrial users according to the nature of their business and their consumption in excess of supply quotas. But Beijing is not the worst-hit place in the North China Plain. "Water shortage has reached a critical stage that demands immediate attention," said Lu Jingkai, an official in charge of hydro-geology at the Ministry of Geology and Mineral Resources.

The severest shortage is in southern Hebei's Zhangzhou area, called a "bottomless pit" by Lu, where water is now only found more than 80 meters below ground, compared with a three-meter under ground water table 30 years ago.

"Most cities in North China and the coastal provinces now face similar problems, because they did not give enough thought to their limited water resources in mapping out urban development plans" Lu told CHIHA DAILY.

While other cities may still have the potential to develop their own water supply sources, three cities--Tianjin, Qingdao and Qinghuangdao--will have to depend mainly on water from other areas via canals, if they continue to develop in the years to come, Lu said.

The water Tianjin now gets from the Luan River Canal, completed two years ago, is "barely enough" to meet current needs, while Qingdao may have to develop more reservoirs besides drawing from the Yellow River project under construction, according to Lu. However, the most vital step is to cut unnecessary water consumption and regulate supply scientifically, said Lu. For this purpose China is drafting a new State Water Law, said Lu.

According to the draft law, urban planning should be based on each city's water resources, while industrial development should be restricted in water-short areas. In the cities, "water supply should first satisfy residential needs" while top-grade ground or underground water sources "should be reserved for drinking purposes."

The draft law also requires the recycling of industrial water and regulated irrigation networks for farmland. "In some developed countries such as Japan, industrial water is recycled as many as three times, while most of our factories just let thousands of tons of their cooling water go down the drain, Lu said.

"And our farms are irrigated with open trenches, where two thirds of the water is lost before reaching farmland. We would need only one third of the water if pipelines were used," Lu added.

According to a nationwide survey of water resources now nearly completed, China has an annual average of about 800 billion tons of water available. "The key to the problem is to conserve every ton of precious water and use it to the best effect--for on this depends the success of this country's modernization program," said Lu.

/9738
CSO: 4020/282

QUESTIONS ON RURAL ECONOMIC POLICY DISCUSSED

Beijing BANYUE TAN [SEMI-MONTHLY TALKS] in Chinese No 4, 25 Feb 86 pp 30-32

[Article by BANYUE TAN editorial staff, under the rubric "Assorted Policy Answers": "Questions and Answers on Rural Economic Policy"]

[Text] Question: What new provisions are there in 1986 rural economic policy?

Answer: The central authorities have drafted a complete set of rural work policies, many of which are of a strategic and long-term nature. Some tasks cannot be accomplished in a year or two. This year we must implement all existing policies in a down-to-earth fashion. At the same time, we must further improve and flesh out policies and make the most of them in order to bring about conditions for continued reform and to develop the fruits of reform. In 1986 we must further improve and flesh out policies as in the following eight examples: 1) We must improve grain allocation and transfer policies; 2) We must implement policies for industrial subsidies to agriculture; 3) We must make suitable adjustments in the amount of assigned procurement in grain contracts; 4) We must guide sound expansion in township enterprises; 5) We must further improve the assigned procurement system for farm and sideline products; 6) We must make suitable price adjustments for specific products; 7) We must enhance land management; 8) We must establish public finance in the countryside.

Question: How will we improve our policy on grain allocation and transfer?

Answer: We will consult the actual levels of grain allocation and transfer for the past few years, and for each province we will work out the quantities of grain to be transferred in or out and the methods of public funding for subsidies. When importing provinces reduce the quantity of grain transferred in, the publicly financed subsidies saved can be set aside to make up for shortfalls in output and to support expansion in grain production. We must make suitable increases in the price of grain allocation and transfer, and the increased portion should be borne by importing provinces. We should put negotiated pricing into effect on any portion that exceeds planned allocation and transfer. Hereafter, grain increases needed in each province to offset population increases and for economic development must be resolved by those provinces themselves. They can produce more grain themselves or they can consult with other provinces and arrange to buy more grain.

Question: What are the advantages of adopting this kind of policy on grain allocation and transfer?

Answer: There are several advantages to this method, primarily the following: 1) It helps China progressively achieve a pattern of grain output and demand focussed on regional balance, thus reducing the need to make large-scale grain allocations and transfers across the nation; 2) It helps to stabilize growth in gross national grain output at a base level of about 8 billion jin, preventing major surges and slumps; 3) It helps us to rationally regulate the economic benefits between grain exporting and grain importing provinces, bringing the strengths of each into play; 4) It helps each province to arrange grain production and adjust industrial composition in a planned fashion, arrive at a good grasp of the situation, and do what it is capable of doing.

Question: How will we implement industrial subsidization of agriculture?

Answer: Industry subsidizes agriculture in many ways. For example, the state can suitably increase its investment in capital construction on farmland; it can improve agricultural production conditions and develop basic facilities for the commodity economy; for imported or domestically produced materials used in agricultural production it can give certain subsidies or tax-exemption considerations, as well as all sorts of favorable credit; and so forth. The central authorities and the various concerned departments under the State Council have already studied or are in the process of studying the adoption of some specific measures in these areas. Right now we should be particularly concerned about and work to resolve support for suitable regulation of economic benefits between those engaged in industry and those engaged in agriculture. This is true for cultivation and breeding trades (mainly those involved with grain and swine), as well as for suburban vegetable production on the outskirts of medium and large cities. We must do a particularly good job of regulating benefits between industry and agriculture in those regions where the economy is relatively well developed and where township enterprises have grown fairly rapidly.

Question: Why must we carry out a policy of industrial subsidies to agriculture?

Answer: Right now there is a rather large difference between income from grain cultivation and income from operating industrial sidelines or commerce. Nevertheless, we cannot raise grain prices to a level which would balance incomes from these endeavors. To stabilize and develop agricultural production, especially grain production, on a macroeconomic management level we must pledge a certain amount of grain growing area and advocate a suitable scale of operation. In addition to this we must adopt measures to safeguard farmers' enthusiasm for grain cultivation. Implementing industrial subsidization of agriculture is one major policy to handle properly the relationships between economic interests; it is also one of our long-term policies.

Question: Where will the funds for industrial subsidization of agriculture in the countryside come from?

Answer: For the most part we will rely on townships and villages to deduct a portion of the income from enterprises operating there and adopt various means of supporting and encouraging cultivation and breeding trades. Simultaneously, the state has decided to extract part of the tax increase on township enterprises and use it to support agriculture. Income from taxes on bonuses awarded to township enterprises is returned to county coffers and used to support agricultural production and rural social insurance enterprises. Local areas should also set aside some additional funds for agriculture from cash surpluses in local finances.

Question: Why must we reduce the amount of assigned procurement in grain contracts, and what is the principle for doing so?

Answer: In 1986 we will make suitable reductions in the amount of assigned procurement in grain contracts nationwide, and we will enlarge the proportion of grain purchased on the market through negotiated pricing. This will be done in order to safeguard and encourage enthusiasm among farmers for producing and selling grain. The reduction principle is as follows: In regions where the commodity economy is well developed and there are many options in a diversified economy, we must stabilize the assigned procurement responsibilities in grain contracts and, through policies of industrial subsidization of agriculture, guarantee that grain production and assigned procurement missions will be accomplished. In regions where there is a potential for growth in grain production but there are not many options in the diversified economy, including new commodity grain regions and some established commodity grain regions, we must reduce the contracted assigned procurement responsibilities and expand market purchasing through price negotiations. This will allow farmers to increase their receipts from overproduction. In regions where land is plentiful and the percentage of marketable grain product is high, the contracted assigned procurement responsibilities will not be reduced. In the very few impoverished regions, we can sign few or no assigned procurement grain contracts and primarily adopt market procurement methods. For farming households and agricultural production units that sign assigned procurement contracts, we should implement policies to encourage chemical fertilizer sales at parity and priority offerings of agricultural credit.

Question: In 1986 suitable price adjustments will be made for specific products. Which products will be affected?

Answer: Significant steps at price reform were already taken in 1985, and we have adopted a policy of basic price stability in 1986. Given that we maintain a state of no basic fluctuation in overall price levels, there will be some upward and some downward adjustments in the prices of specific agricultural products. We will implement the principle of high prices for high quality and open the door to suitable quality price differences. Appropriate increases in soybean procurement prices will be made primarily in concentrated production areas. In general there will be no fluctuation in the market price of materials used for agricultural production, except that there will be suitable reductions in the selling price of chemical fertilizer.

Question: Why must we establish public finance at the primary village level?

Answer: We must establish public finance in the countryside, centralize the handling of primary village-level revenues and expenditures, and carry out investigations and supervision through village people's representative assemblies. This will play a major positive role in the following areas: the proper acquisition of income and rational disposition of expenditures, using most of the income to support agricultural production; the enhancement of efforts to build rural political power at the grassroots level; the control of unhealthy tendencies; and the prevention of corruption and waste.

12510
CSO: 4007/320

RURAL CREDIT COOPERATIVES INCREASE

Beijing NONGMIN RIBAO in Chinese 15 Nov 85 p 1

[Article by Su Beihai [5685 0554 3189]: "There Are Now 420,000 Rural Credit Cooperatives Throughout China; Strengthening Popular Nature, Promoting Responsibility System, Increasing Organizational Network, Developing Credit Cooperatives"]

[Text] The reform of all of China's rural credit cooperatives has been highly effective; through October 1985, as a result of the hard work of almost 700,000 credit cooperative employees and managers, total deposits in China's rural credit cooperatives have reached 66.88 billion yuan, cumulative loans are 52.45 billion yuan; these figures, compared with pre-reform 1982 figures, show increases of 170, 380, and 860 percent, respectively.

This information was given on 13 March 1986 by Wang Jingshi [3769 2529 1597], deputy director of the Agricultural Bank, at the All-China Rural Credit Cooperative Work Conference at Kunming.

Since 1983, rural credit societies in all parts of China have been seriously implementing CPC Central Committee and national government directives, carrying out restructuring from fine details to broad changes, from superficial to deep modifications. At present, over 80 percent have been restructured. After being restructured, favorable changes have taken place in four aspects of the work: 1) Restoration and strengthening of the popular, democratic, and flexible nature of credit cooperatives, thus producing a closer relationship between credit cooperatives and rural masses. For several years, every locality has been seriously putting its capital stock in order. Ninety percent of the members' shares were confirmed, and in most parts of the country, members were also issued stock bonuses; the number of shares was increased and new cooperative members were accepted. Upon this foundation, cooperative member conferences were held all over, voting for regulatory and supervisory meetings, building sound democratic control systems and strengthening control and supervision by the masses. 2) Gradually expanding the economic responsibility system, mobilizing positive aspects of personnel and managers. After increasing activity and strengthening control, credit cooperative profit levels have continued to increase in the whole country. Especially after implementing the system of liability contracts and reducing shares of liability responsibility, the amount of credit cooperative losses has been decreasing from year to year. 3) Adjusting organization and expanding network points. In order to adapt to the needs of rural commodity production and the development of a multitiered economy after restructuring, in the whole country 3,000 new credit organizations have been added as well as 27,000 network points. At present, the country has a total of more than 420,000 credit organizations. 4) Building credit cooperatives. County-level associations have strengthened their aid and regulation of credit cooperative work. Since 1983, more than 85 percent of the counties in China have established county-level associations; under the leadership of the Agricultural Bank, they have exerted a positive influence.

After restructuring, credit cooperatives have not only exerted an ever greater influence on the organization and utilization of agricultural capital, on maintenance of agricultural reform and development of agricultural productivity, but also have made positive contributions to the national control of the amount of credit available and to the availability of currency. Through the end of October, China's credit cooperatives have redeposited 29.78 billion yuan in bank accounts, an increase of 4.26 billion yuan, or 16.7 percent, over the same period last year.

9990/6091
CSO: 4007/162

FISHERY OFFICIAL DISCUSSES AQUATIC PRODUCTS, FISH SUPPLY

OW140905 Beijing Domestic Service in Mandarin 0630 GMT 13 Apr 86

[Talk by (Tu Fengjun), director of Aquatic Products Bureau of the Ministry of Agriculture, Animal Husbandry, and Fishery: "A talk about our country's aquatic products industry and the principles and policies for solving the fish supply problem"; date and place not given--recorded]

[Excerpts] When the words aquatic products are mentioned, people are probably not very familiar with them; but when we talk about the fish supply problem, then everyone shows concern. Today, taking advantage of the opportunity provided by the Central People's Broadcasting Station, I would like to give a simple introduction to our country's aquatic products development situation and to some ideological aspects of our efforts in striving to solve the fish supply problem in large and medium-sized cities within 3 to 5 years.

In the more than 30 years since our country's founding, our country's aquatic products industry has developed tremendously. In 1949, the country's total output of aquatic products was only 450,000 metric tons; in 1985, it topped 7 million metric tons. In the early period after liberation, almost none of our fishing boats engaged in ocean fishing industry were equipped with motors; now, there are over 100,000 power-driven fishing boats with a total of over 5 million horsepower. The operation grounds of these boats have also been greatly expanded, expanding gradually from the coastal areas to the nearby and outer seas. Last year, we began to have our own ocean fishing fleet. The freshwater and marine fish raising area now exceeds 60 million mu, or more than 10 times that in the early period after liberation, with output rating first in the world.

However, mistakes in production policies and guiding ideology that have existed for a long time have affected the speed of production development and brought about many serious consequences. As far as the internal structure of aquatic production is concerned, tendencies of stressing catching while ignoring fresh water, and stressing quantity where ignoring quality have long existed among us. As a result of indiscriminately intensifying fish catching by every means, economic fish resources in nearby seas have been seriously damaged.

Aquatic products fall in the category of commodities which are in very short supply on the market. Because of its exceedingly large population, it is truly not an easy thing to solve our country's fish supply problem. At the same time, it is not enough to just rely on the aquatic products departments to maintain and develop the excellent situation in aquatic products industry development. It is necessary for all departments concerned to make joint efforts to create a new situation in this industry.

/12232
CSO: 4007/363

FISHERY INDUSTRY PLANS INCREASE IN OUTPUT BY 1990

HK120656 Beijing CHINA DAILY in English 12 Apr 86 p 1

[By staff reporter Guo Zhongshi]

[Text] Fishing industry leaders are planning to increase the country's total fish and seafood harvest from 1985's 6.97 million tons to 9 million tons by 1990.

They say the goal of an annual 400,000-ton increase over the next 5 years should not be too difficult to achieve as the call to expand fish farming has already been met with enthusiasm across the country.

"We can certainly put more fish on the dinner tables of urban residents in 5 year's time," said She Danu, deputy director of the Bureau of Aquatic Products under the Ministry of Agriculture, Animal Husbandry and Fishery.

By 1990 when the country's total population is expected to have reached 1.1 billion people, She Danu said, each Chinese could have more than 8 kilograms of fish a year, compared with about 6 last year. The present fluctuations in urban fish supplies should be smoothed out.

"Our seafood output could sound much higher by international standards," he said, explaining that China excluded marine products like seaweed from its output statistics and weighed only the flesh of shellfish, while most other countries lumped them all into their total aquatic output figures.

She said the industry was also pushing simultaneous progress in farming, catching and processing with more flexible policies and a market-regulated pricing system.

He said a major breakthrough was expected in marine fish farming that would increase the catch at a rate of 11.4 percent a year to a total 1.2 million tons in 1990.

The total output value of marine farm products was expected to reach 1.2 billion yuan (about 400 million), double the present amount, and exports were planned to top 700,000 tons earning $300 million in foreign exchange, he said.

According to the industry's draft plan for the next 5 years, farms breeding shrimp and other valuable seafood are to be given priority in order to raise their output from the present 9.3 percent of marine farms' total production to 21 percent.

The country will devote as many as 33,000 hectares to prawn breeding farms which are expected to turn out 100,000 tons annually, according to Xiao Peng, vice-minister of agriculture, animal husbandry and fishery.

Xiao said major export bases would be established in coastal cities, to breed seafood so that gradually prawns, crab and eel would become the three "first" products for export.

Besides upgrading the processing industry, the 176 coastal counties should aim to produce 10,000 tons of seafood a year by 1990 and cities 100,000 tons, Xiao said.

/12232
CSO: 4020/277

STATISTICS ON STATE FARM PROCUREMENT, SALES

Beijing ZHONGGUO NONKEN [STATE FARMS AND LAND RECLAMATION] in Chinese No 11, 24 Nov 85 p 28

[Table: "1985 Statistical Table of China's State Farm Products, Sales, and Procurement"]

[Text]

[Table on following page]

Monetary unit: 10,000 yuan

Unit	Total Procurement, Sales		Procurement		Sales		Important Commodities	
	Share	Money Amt	Share	Money	Share	Money	Purchases	Sales
Total	960	10050.3	347	3186.2	613	6864.1	Grain, oil, local specialties, medicine	Grain, oil, local specialties, light textiles
Beijing	6	9			6	9		Wine, local specialties
Tianjin	18	109.4	8	53.2	10	56.2	Nonstaple foods	Milk products, poultry-raising equipment
Hebei	17	151.1	1	0.8	16	150.3	Canned goods	Steel, asphalt roofing
Shanxi	24	310	13	194.3	11	115.7	Livestock, local specialties	Grain, nonstaple foods
Nei Monggol	23	330	3	10	20	320	Clothing	Shoes, furs, corn
Liaoning	55	380	30	170	25	210	Oranges, feeds, tea	Nuts, grain, watermelon seeds
Jilin	25	40.5	20	20.5	5	20	Nonstaple foods	Grain, light textiles
Heilongjiang	30	676.6	8	30	22	346.6	Clothing, carpets	Soybeans, soybean cakes, watermelon seeds
Shanghai	30	112			30	112		Livestock, light textiles, clothing
Jiangsu	46	873.2	6	469	40	404.2	Grain, Chinese herbal medicine	Grain, local specialties, light textiles

Unit	Total Procurement, Sales		Procurement		Sales		Important Commodities	
	Share	Money Amt	Share	Money	Share	Money	Purchases	Sales
Zhejiang	22	159	10	49	12	110	Nonstaple foods	Grain, light textiles
Anhui	27	249.4			27	249.4		Grain, local specialties, feeds
Fujian	45	300.1	30	251.1	15	49	Rice, peanut oil	Local specialties
Jiangxi	80	354.7	10	36.7	70	318	Grain, oil	Nonstaple foods, local specialties
Shandong	30	370	5	20	25	350	Refined sugar, oranges	Corn, sorghum, nuts
Henan	51	490	6	10	45	480	Clothing	Corn, sesame, canned goods
Hubei	34	430	18	250	16	180	Nonstaple foods, clothing	Nonstaple foods
Hunan	60	584.5	30	250	30	344.5	Sunflower seeds, light textiles	Nonstaple foods, local specialties
Guangdong	20	818	6	180	14	638	Beans, cooking oil, watermelon seeds	Sugar, wine, livestock, fruit
Guangxi	2	13			2	13		Nonstaple foods
Sichuan	61	583.5	21	123.5	40	460	Light textiles	Nonstaple foods, medicines
Chongqing	21	1203.7	6	314	15	889.7	Nonstaple foods, milk products	Nonstaple foods, fruit

Unit	Total Procurement, Sales		Procurement		Sales		Important Commodities	
	Share	Money Amt	Share	Money	Share	Money	Purchases	Sales
Guizhou	16	115	4	35	12	80	Sorghum, corn	Wine, local specialties
Yunnan	20	155	5	30	15	125	Light textiles	Nonstaple foods
Shaanxi	18	20	16	19.6	2	0.4	Clothing, fruit	Bedsheets
Gansu	3	10.6	1	3	2	7.6	Nonstaple foods	Local specialties
Qinghai	18	67			18	67		Light textiles
Ningxia	28	47	21	40	7	7	Nonstaple foods, livestock	Nuts, medicine
Xinjiang	33	410	4	50	29	360	Local produce, nonstaple foods	Watermelon seeds, medicine
Jiading County, Shanghai	10	35	6	20	4	15	Refined sugar, peanuts	Light textiles
Kunming	1	7.5			1	7.5		Nonstaple foods
Guangzhou	10	400	5	150	5	250	Nonstaple foods	Livestock
Nanjing	3	3.5			3	3.5		Nonstaple foods, light textiles
Nanning	3	10			3	10		Canned goods
Wuhan	12	70	4	30	8	40	Light textiles, local produce	Nonstaple foods, local specialties
Shenzhen Corp.	2	56.5	2	56.5			Gingerroot, lotus	
Shanghai Corp.	56	385.5	48	320	8	65.5	Grain	Light textiles, clothing, livestock

BRIEFS

RAPESEED OUTPUT, SALES--This year the total national production of rapeseed is estimated at 10 billion jin, an increase of 2.2 billion jin over last year. Production of rapeseed in Sichuan is estimated at 2.5 billion jin, which is 650 million higher than last year's production. Planned procurement of rapeseed is 2.billion jin, 600 million over last year's procurement level. During the last 2 years, state sales of cooking oils have been exceeding purchases, and stockpiles have been reduced to maintain a balance. Through March of this year, national stocks have just been sufficient for 8 months. In 1985, Sichuan Province fixed-price and negotiated-price sales amount to approximately 500 million jin and the central government needs to ship 300 million jin. There is still a shortfall of 100 million jin in order to reach a balance of purchases and sales. Recently, a leading Central Committee comrade has given these instructions regarding next year's procurement of rapeseed: "Reverse the 4:6 ratio in calculating prices, open up procurement, do not set any ceilings." He predicts that there will not be any problem whatsoever in selling rapeseed next year and that the volume of cooking sales may tend to increase even more. [Text] [Beijing NONGMIN RIBAO in Chinese 31 Oct 85 p 2] 9990/9190

INCREASED CANNED GOODS SALES--According to reports from the Food Bureau of the Commercial Department, during the past several years, sales of canned goods in China have been steadily increasing. This year, the rate of increase has been especially great. Statistics for all of China show that state-run commercial enterprise sales of all kinds of canned goods amounted to 11.36 million cases in 1984, an increase of 20 percent from the preceding year. In January through May of this year, 7.5 million cases of canned goods were sold, an increase of 65 percent over the same period last year. Of these, sales of canned fruit amounted to 4.59 million cases, an increase of 50 percent. Sales of canned goods in the provinces of Hunan, Hebei, Hubei, and Heilongjiang increased 50 to 80 percent. Sales in Zhejiang, Beijing, Tianjin, and Ningxia doubled or even tripled. Sales of canned goods in the second half of this year are also projected to continue increasing. Since people bought a little extra before prices of secondary food products deregulated in the first half of the year, we will have to reduce our estimates to make up for this factor. The amount of sales in the first half of the year is estimated at 9 million cases just to keep up stocks. Estimated sales for the whole year are approximately 16 million cases, an increase of 40 percent over last year. [Text] [Beijing NONGMIN RIBAO in Chinese 31 Oct 85 p 2] 9990/9190

TEA PRODUCTION--In 1985, China produced 8.8 million dan of tea, and the volume of profit and tax handed over to the state by tea plantations totaled some 90 million yuan. Over 2.7 million dan of tea was exported in that year, earning a revenue of U.S.$280 million in foreign exchange. This was a record high. [Summary] [Beijing Domestic Service in Mandarin 1200 GMT 1 Apr 86 OW] /12232

CONTROL ON IMPORTED SUGAR--Beijing, 14 Apr (XINHUA)--The State Council general office announced that from now on, no other Chinese company except the Commerce Ministry is allowed to handle sales of sugar imported according to the state plans. Localities and departments must obtain licenses for importing sugar with their own foreign exchange. Unlicensed imports will be confiscated and importers will be punished, the office said. [Text] [Beijing XINHUA in English 1504 GMT 14 Apr 86 OW] /9738

SUGAR PRODUCTION TO INCREASE--An official of China's sugar and wine corporation said today that China would reduce sugar imports if it can produce five million tons of sugar in 1986, compared with the 4.82 million tons produced in 1985. By that time, each Chinese will consume 5,000 grams of sugar each year on average, compared with the 3,000 grams in 1984, Pe said. [Text] [Beijing XINHUA in English 1504 GMT 14 Apr 86 OW] /9738

COMPUTERS' BOOST TO AGRICULTURE--Wuhan, 3 April (XINHUA)--China has begun experimenting with the use of computers to determine planting strategies. Planners, using a broad range of data to project results of different cultivation plans, will use computers in 43 counties this year, officials from the Ministry of Agriculture, Animal Husbandry and Fishery said today. At a conference this week on computer-assisted agricultural planning here, the officials agreed to continue to experiment with methods first tried in Miangyang County, Hubei Province. Using the computer projections, the officials said, the county was able to double its economic returns in 1984. If the project proves successful in the 43 counties this year, they said, the computer projection system will be used throughout China in the future. [Text] [Beijing XINHUA in English 1059 GMT 3 Apr 86 OW] /12232

CSO: 4020/277

DEVELOPMENT PLANS TO FIT POTENTIAL OF DIFFERENT REGIONS

Beijing NONGMIN RIBAO in Chinese 25 Jan 86 p 1

[Article by reporter Qiu Jing [8002 7231]: "Start From Practice and Set the Direction of Development by the Different Kinds of Districts; Gansu Indices Guide Development of Farm Village Economies; Average Net Income for Farmers in 1985 Increased 27 Yuan Over the First Year"]

[Text] With the Gansu party committee and government firmly supporting setting out from practice and fixing the direction of development according to the different kinds of districts to promote farm village production structure adjustment and farm village economic development, and with the entire province's grain field area down slightly and some area's suffering serious disaster in 1985, total grain production still approached that of 1984, reaching 10.5 billion jin. Gross rural enterprise production value was 1.5 billion yuan, an increase of nearly 100 percent over 1984. GVAO was 4.2 billion, a 7.7-percent increase over 1984. Average farmer net income increased 37 yuan over 1984.

Gansu is divided into the four major sections of Longdong, Longnan, Hexi, and Zhongbu. Differences between the regions are quite big. Led by principle leading cadres, in early 1985 the provincial party committee and government visited these major districts one after the other. An in-depth investigation was launched. It was concluded that the basic ways to economic development were the whole series of cultivating, raising, and processing, energetically developing rural enterprises and city collective economies, developing horizontal links between the city and countryside, and liberalizing and developing, and adding value through processing. At the same time, and starting from the different natural and economic conditions of different places, the guiding principles for the economic development of the four macroregions are to be further perfected. Based on Longdong's coal, oil, paulownia, beef cattle, meat rabbits, and other favorable circumstances for development of commodity production, settle on the guiding principles of insisting on planting grass and trees, developing animal husbandry, and using rural enterprises as the core to lead in productive development by diversified enterprises and tertiary industries. The Longnan region has the favorable circumstances of forests and fruits, medicinal ingredients, small-scale hydroelectricity, and so forth to determine the guiding principle of taking rural enterprises as the point of breakthrough, prospering through industry, and diversifying operations. The Hehsi region has the cash crops of stable and high-yield grains and rich mining resources to determine the guiding principle of speeding up the development of resources, taking rural enterprises as the gap to be broken through, the development of primary, secondary, and tertiary industries, and be the first in the whole province to prosper. The hard-pressed Zhungbu region also has favorable economic development conditions in surplus labor, large tracts of cultivable land, rich natural resources for building materials, a suitable scale of construction, and proximity to the central city of Lanzhou, which offers the ways of development of fostering the central city's function, promoting integration, speeding up resource development, energetically developing rural enterprises, the city's collectivized economies, and tertiary industries, and industry and agriculture mutually assisting one another, countryside and city interpenetrating, and developing together. These guiding principles powerfully promote the economic development of the whole province.

13152/13046
CSO: 4007/280

GUANGXI

GUANGXI HEMP PRODUCTION BEGINS TO RECOVER FROM SLUMP

Beijing NONGMIN RIBAO in Chinese 16 Nov 85 p 2

[Article by Huang Zheng [7806 2110]: "Sales of Guangxi Hemp Start To Recover from Stagnation"]

[Text] Since 1982, sales outlets for hemp on domestic markets have been poor, and in the whole country sales have stagnated and prices have fallen. The price for a ton of Grade 1 hemp fell from 2,000 to 2,200 yuan in the 1960's to 1,650 yuan. In Guangxi, many hemp-processing or hemp-trading units had their warehouses full without sales outlets for several years and were forced to stop purchasing. Many state farms specializing in hemp had no other choice but to switch to some other form of economic activity.

During the second half of last year, sales of hemp started to improve. At the Nanning City commercial trade fair in mid-October, Guangxi sold 5,000 dan of hemp to other areas, breaking the 2-year long slump in which no hemp was traded at the fair. In mid-April of this year, at the 1985 Zhengzhou National Wholesale Trade Fair, the Shangsi County produce company managed to get several years' accumulation of hemp (amounting to tens of tons) off its hands all at once. At the 1985 Zhengzhou National Local Produce Trade Fair in late September, hemp was easy to sell; in fact, sales were brisk. The actual situation is that the demand for Guangxi hemp in other areas has been steadily increasing, and prices have started to rise again. Recently, the price of Grade 1 hemp was increased from 1,650 yuan to 2,056 yuan per ton; Grade 2 hemp has increased from 1,450 yuan to 1,887 yuan per ton; and Grade 3 hemp has increased from 1,250 to 1,684 yuan. Judging from sales tendencies, these prices will probably continue to increase until they return to 1960's levels.

The principal causes of this change in the market for hemp are the following:

Starting last year, exports of ramie and jute products have been increasing wildly, causing domestic stocks of the "two fibers" to become depleted and also causing price increases. Many products which originally were made only from the "two fibers" have decreased in their proportion of these fibers in order to maintain production. A motley assortment of substitute fibers is being used to produce sofas, mattresses, sports pads, etc. So now after several years of accumulating hemp stocks, units concerned have been actively investigating ways to make use of this hemp in order to effect a sizeable increase in the demand for hemp.

9990/9190
CSO: 4007/173

FAVORABLE CHANGES IN GUIZHOU TIMBER MARKET

Beijing ZHONGGUO XIANGZHEN QIYE BAO in Chinese 20 Nov 85 p 2

[Article by Liu Cheng [0491 6134]: "Favorable Changes Occur in Guizhou Timber Market"]

[Text] This year, after restrictions were removed on the management of the southern collective forest district, favorable changes have occurred in the Guizhou timber market.

First, stocks have increased, easing an earlier tight supply-demand situation. After removing management restrictions on timber, sales and purchase agreements have been made, solving several long-standing problems with timber prices and encouraging development of productivity. This year's planned timber production for Guizhou has been completely fulfilled, with many varieties, sound quality and sufficient stocks. At present the amount of timber available for sale in the province is 310,000 cubic meters.

Second, timber prices are stable with a tendency to decrease. This year, when Guizhou timber prices are compared with last year's national figures, pine has risen 80 percent and fir has risen 100 to 200 percent. However, when compared with last year's independent peasant prices, pine has decreased 20 percent and fir has decreased 30 percent.

Third, timber has changed from a sellers' market to a buyers' market. In the past, timber was purchased and sold by the state; units would have purchase orders in but would often not obtain the timber or would just get whatever was available at the time; this was absolutely a sellers' market. This year not only can lumber-using units or individuals buy lumber whenever they need it but they can also select the kind or quality that best suits their needs.

Fourth, restrictions on trade between provinces, regions, and counties have been removed. Guizhou is a timber-producing province. In the past, timber could be shipped out but could not be shipped in; one-half of the year's planned timber production was used in the province and the other half was shipped to Hubei. This year, 210,000 cubic meters of timber have been sold to Sichuan, Shandong, Jiangsu, Shanghai, Guangdong, and Hubei.

Fifth, demand by users of special lumber and precious woods have been better satisfied. Previously, timber could not be priced according to quality level, and Guizhou's wood for models and for sculpture was difficult to control. This year, the province has produced over 3,000 cubic meters of specialized woods and precious woods, which have basically satisfied the users' requirements.

9990/9190
CSO: 4007/173

HEILONGJIANG REDUCES PEASANTS' FINANCIAL BURDENS

Beijing NONGMIN RIBAO in Chinese 4 Nov 85 p 1

[Article by Li Fulai [2621 4395 0171]: "Heilongjiang Provincial Organizations Examine Themselves and Reduce Burdens of Peasants; 26 Bureaus Reform Systematic Discrepancies With CPC Central Committee Policies in Financial Apportionment"]

[Text] Heilongjiang Province, after examining excess burdens of peasants, has discovered that many expenses have been imposed by regulations, rules, and documents from higher level bureaus. Of these, impositions from provincial or higher level bureaus make up 56.7 percent of the increased burdens; burdens imposed by local, county, and the township levels make up 43.3 percent of the revenues collected from the peasants. Therefore, at this time Heilongjiang Province's 26 bureaus which are imposing burdens on peasants are seriously examining ways to reform the system of unreasonable regulations and are investigating improper apportionment of funds, improper financial penalties and improper expense charges, all of which are against CPC Central Committee and governmental policies and directives.

Not long ago, Provincial Governor Hou Jie [0186 2212] listened to the peasants' outcry and reactions to misapportionment, improper charges and imposition of excessive burdens by these bureaus and organized a provincial commission to carry out a careful and thorough investigation. This commission discovered that the bureaus involved increased peasants' burdens by issuing 23 kinds of official licenses, certificates, trademarks, and registers. It made a thorough check of such requirements as the agricultural machinery bureau's "tractor license" and the industrial and commercial bureau's "permit for planting, breeding, or for specialized household enterprises." From now on, all licenses must be approved by the price bureau and the finance bureau; moreover, only the basic cost of services can be charged. Licenses and certificates which were made up to extort money or which are no longer useful should all be eliminated. As regards making use of financial and technical services offered by farmers, forced sharing and collection, because the judicial department has established that each township or village's public order and contract personnel are all to be paid by the peasants, the resolution of this matter is a matter of self-determination of the masses and will be decided democratically. In the past, the transportation bureau would charge a fee the moment it saw that a peasant's transport vehicle was on the road, not distinguishing whether it was used for a productive service or was used to run a transport business. This time it has established that whenever the district or township government proves that the peasant was transporting materials necessary for production, then he will not have to pay the road tax. In addition, the procedure fee for cattle sales negotiation and the transaction fee required by the industry and commerce bureau and the epidemic-prevention fee required by the health bureau will all be collected on the basis of standard and reasonable costs. The illicit activities of imposing arbitrary financial penalties and confiscation of peasants' property have been seriously investigated; it has been established that from now on if there are no public announcements and published printed documents by county level or higher governmental entities, no section is allowed to penalize or confiscate peasants' money or property. Sections which have kept for themselves government subsidy payments intended for farmers shall return all of them. At the same time, the party committee and the government must ask all levels of government below province level and every section involved to make a thorough investigation of unreasonable burdens imposed on peasants.

9990/6091
CSO: 4007/162

HENAN

REVISIONS IN RURAL CREDIT POLICY URGED

Zhengzhou HENAN RIBAO in Chinese 28 Feb 86 p 2

[Editorial by Xu Jiafu [6079 1367 1381], vice president of Henan Agricultural Bank, under the rubric "Discussions of Rural Reform": "Readjust Credit Policy and Stimulate Rural Banking"]

[Text] In 1986 rural reform will enter a new phase. In line with the demands of the central authorities that we enhance and improve macroeconomic control, in Henan the rural finance task will focus on acting in the spirit of Central Circular No 1. We must readjust our credit policy, vigorously promote thorough comprehension of funding, make good use of limited funds, and promote sustained, stable, coordinated growth in the rural economy.

Specifically, in planning the direction and quantity of investment for rural credit funds, we must ensure that rational funding requirements for grain production will be given first priority. We must stress support to strengthen wheat-growing counties and other commodity grain base counties, we must back expanded production in specialized grain-farming households, and we must give credit support to contracting farm households. Newly increased 1986 agricultural credit must also be used primarily to back farmers as they adopt advanced science and technology, improve agricultural production conditions, and increase grain quality and per-unit yield. Credit cooperative funds must above all guarantee that funding requirements for agricultural production are met. Only surplus funds may be granted for industrial and commercial credit. We must firmly correct the practices in some credit cooperatives of amassing funds for use as industrial and commercial credit and using credit to "build up rich and influential households." Given the guarantee of a stable grain increase, we must support assorted forestry, animal husbandry, and fishery trades and also make suitable increases in their credit ratio. To back growth in the diversified economy we must not only bring regional advantages to bear, we must also take care to match them up with market demands and avoid indiscriminate action.

As for township and town enterprises, we must handle them based on differences in region, trade, and function, and select outstanding ones to support. We must make suitable allowances for credit in less advanced areas, and we can relax credit restrictions as appropriate for those industries that should be encouraged. Township and town enterprise credit, which has been newly increased in 1986, should be used primarily to back up the need for normal circulating funds in existing enterprises. The focus of support should be based on agriculture, on processing industries for farm and sideline products and other preproduction and postproduction agricultural service industries, and on small-scale mining and construction-material industries. We must strictly control credit for production equipment and put an emphasis on finding ways to implement "half" [banlazi 0584 2139 1311] projects and the "spark plan," wherein project time limits are short, investment is small, results are rapidly evident, and benefits are good. Generally speaking, economically advanced areas should back no further new construction projects. In regions where economic conditions are less satisfactory, we can back new construction projects as appropriate where there are conditions, controls, and objectives for doing so. We must amass some funds to focus on supporting local markets that have basic resources, but that urgently need well-known, high-quality products and goods to bring in foreign exchange.

Rural commercial credit work will receive specific attention and be particularly intensified. We will support cooperative rural commerce based on supply and marketing cooperatives; develop horizontal economic connections; arrange processing, storage, transport, and marketing for farm produce; develop diversified economic services; and popularize agricultural science and technology. In this effort, we must give priority to ensuring supplies of funds to purchase contracted farm and sideline products. We must give prominence to arranging loans for chemical fertilizers, pesticides and other agricultural production materials. Simulataneous with our support of existing circulation channels and our expansion of rural commodity circulation, we must everywhere coordinate with the departments concerned to support new types of experimental commercial enterprises featuring transregional and interdepartmental industrial and commercial integration, agricultural and commercial integration, or agricultural-industrial-commercial integration. We must offer our support to open up and extend the sphere of circulation. Given the guarantee of repayment, we must work through pilot projects to form a plan and a focal point for backing infrastructural construction in rural collective trade centers and primary supply and marketing cooperatives. As for failing enterprises, we must exercise tight credit and urge them to turn losses into profits.

It is our unshirkable duty in rural credit work to give enthusiastic support to impoverished regions and households so that they can develop commodity production, cast off poverty and enrich themselves, and change their overall appearance. We must stand by disaster regions so that they can help themselves by engaging in production. We should combine aid to the poor with disaster relief. Agricultural credit was newly offered to 21 impoverished counties in 1986 (including the Laosu region). Of those, there are six disaster zones and cities wherein self-help production credit should be combined with local development loans, bank funds, and credit cooperative funds, and rational arrangements should be made for their different uses. Special credit should be focussed on key production projects to help change the face of impoverished regions. Loans to disaster regions must both resolve the difficulties facing those regions and also support certain projects that can be profitable only in the long term.

The agricultural banking system must accomplish these tasks, though the difficulties are quite significant. The major problem is that there is a prominent contradiction and a major gap between supply and demand for rural credit funds. The basic route to resolving the contradiction between funding supply and demand is to work hard to organize savings deposits and tap the potential of existing funds. First we must energetically expand the source of funds, struggle to attract more deposits, and extend more more credit. Second, we must stimulate precipitate funding, accelerate fund turnover, and take overall stock of credit fund resources. In order to stimulate local enthusiasm for accepting credit, recalled precipitate loans will continue to be reserved for local use, credit cooperatives and departments concerned that help to collect on debts from old agricultural loans made prior to the end of 1978 will receive a 0.5 percent commission, and 30 percent of recalled farm loans can be used for local development projects. Satisfactory accomplishment of these tasks will play a significant role in mitigating the contradiction between the supply and the demand for rural funding in Henan.

12510
CSO: 4007/320

HENAN INCREASES AQUATIC OUTPUT

Beijing NONGMIN RIBAO in Chinese 29 Oct 85 p 1

[Article by He Shuiju [0149 3055 1446]: "Deregulation Policy Mobilizes Positive Aspects of Agriculture, Livestock, and Fisheries; Henan Aquatic Output for First Half of Year Was over 40 Percent Higher Than Same Period Last Year"]

[Text] All levels of Henan Province party and governmental sections have been seriously implementing the CPC Central Committee's directive "On Deregulating Policies, Accelerating Development of Aquatic Production" and the state of aquatic production is encouraging. During the first half of this year, total aquatic output amounted to 30,421 tons, 48.2 percent higher than output for the same period last year.

This year, farmers all over Henan have been actively developing aquatic output at a previously unheard-of rate, cultivated fields are being changed into fish-breeding areas and everywhere one can see fish-breeding ponds being dug in unused land. Following the development of aquatic production, total production of fish fry and fingerlings, fish sales and the total area of rice paddies used for breeding fish have all increased appreciably. During the first half of the year, total production of small fry in the whole province exceeded 2.1 billion in mumber, an increase of 83 percent over the same period last year. The number of these raised to fingerlings amounted to 1.15 billion, 44.5 percent over the number in the same period last year. During the first half of the year, the area of rice paddies used for raising fish increased to 168,000 mu, three times higher than last year at that time.

In order to satisfy pressing mass demands for fishery technology, during the first half of last year, over 15,000 personnel were trained in fish breeding in Henan Province. Just in Xinyang Prefecture alone, over 100,000 copies of fishery technique books and materials were distributed and were welcomed by the masses. At the same time the books and technology were being issued, instruction was being emphasized. On the foundation of the basic aquatic production study groups started last year, this year two large specialized aquatic production groups and one advanced study group were started in order to improve the masses' level of fishery techniques and output.

Every district has also been paying attention to market reports and has been adjusting the fishery product mix. Based on market requirements, many production units are now increasing the proportion of such high-quality fish appreciated by the masses as grass carp, golden carp, and bream. After introducing Niluo Luofei [1441 5012 7236] fish, hybrid fish and other fine varieties, they have also introduced leather-beard catfish and other quality species in order to stimulate the development of aquatic production.

9990/1910
CSO: 4007/167

HENAN

FARM MACHINE MARKET BOOM TO CONTINUE

Beijing ZHONGGUO NONGJIHUA BAO in Chinese 26 Jan 86 p 3

[Article by Guo Qinghua [6753 1987 5478]: "According to a Survey Forecast of Farm Machine Markets in 18 Provinces, the Farm Machine Market in Henan Will Keep Booming This Year"]

[Text] There was an unprecedented boom in Henan Province's farm machine market last year, with sales exceeding 700 million yuan. What is the outlook for this year? According to the most recent forecast from survey data, the Henan farm machinery market for this year will keep booming.

The bases for this are:

1. Farm village purchasing power will continue to rise. According to what a provincewide agricultural household sample survey reveals, per capita income for farm villages might reach 330 yuan, a 9.6-percent increase over last year. At the same time, high-income households will increase in number and low-income households decrease. There are 3,247,000,000 yuan in farm village commune member saving deposits, a 437-million-yuan increase over early last year. Potential buying power is great. In credit, the nation still will take a supportive policy for agricultural production. The Central Committee stressed many times that seizing agriculture, grain, and diversified economies will certainly increase the buying power for production material in farm villages. Recommendations in the seventh 5-Year Plan point out that it is necessary to appropriately increase the county's agricultural investments, and use the investments principally in building irrigation works, strengthening agricultural field construction, and increasing the supply of farm implements.

2. All areas need to continue this year to repair agricultural fields and irrigation works and facilities. This will benefit irrigation and drainage machinery sales.

3. Indiscriminate levying of fees and imposing fines will be redressed, and the apprehensions of farmers eliminated.

4. Potential demand is great. The quantity of farm machinery currently possessed by the province has yet to reach capacity. Some old machines need replacement. Potential demand is quite large because of this.

5. Supplies for this year are assured. Last year, there were serious insufficiencies in some product supplies which influenced sales increases. Supplies are sufficient for this year. For example, there are 805 million yuan in orders for Shanghai 50 tractors, small four-wheelers, and so on, a 23-percent increase. Basically, supplies are assured.

On the basis of the above-mentioned beneficial factors, it can be forecast that the 1986 Henan Province farm tool market will remain prosperous.

13152/13046
CSO: 4007/280

INTERVIEW ON NEW WATER CONSERVATION REGULATIONS

Shijiazhuang HEBEI RIBAO in Chinese 20 Jan 86 p 2

[Interview with Director Zhang Ziming [1728 1331 2494] of the Provincial Water Conservation Department: "Manage Water Resources According to the Law; Provincial Water Conservation Department Director Zhang Ziming Responds to a Reporter's Questions About Putting 'Water Conservation Regulations for Hebei Province' into Practice;" date and place not given]

[Text] After the standing committee of the Provincial people's congress issued "Water Conservation Regulations for Hebei Province," Director Zhang Ziming of the provincial water conservation department spoke as follows to a reporter for this newspaper on how to implement the "Regulations":

[Question] Please talk about the significance of issuing "Water Conservation Regulations for Hebei Province" for strengthening the significance of the province's water resource management work.

[Answer] Water is an indispensable material base for industrial and agricultural production and for the people's livelihood. It is national wealth, like land, mining, and forests. The province is arid and lacks water, and the amount of water used in industry and agriculture is increasing rapidly. According to statistics, current industrial water use has increased 40-fold and farm water use 6-fold from that at the establishment of the PRC. The province's water shortage in most years is more than 8 billion cubic meters. According to the demand that industrial and agricultural output value be quadrupled, it is estimated that by the end of this century the province will have a water shortage of 10.5 billion cubic meters. Due to the lack of water, contradictions between industry and agriculture, and between different regions, are intensifying daily. On the one hand, the province lacks water, and, on the other hand, the phenomenon of wasting and polluting water is also very serious. According to relevant department estimates, 1.5 billion tons of water polluted by industrial or human waste is dumped into the water, creating a polluted water system. People's health and lives are seriously threatened. The serious overdrawing of underground water has lowered the water table and led to encroachment of seawater. The consequences of this are dreadful. With the above conditions, there is a compelling need for water resource regulations to serve as a legal basis for provincial water use and management and to enable the legal rights and interests of water use and management departments to be legally guaranteed. The standing committee of the 6th plenary of the provincial people's congress passed at its 17th session "Water Conservation Regulations for Hebei Province." Drafted according to the constitution and the country's relevant water resource policies and regulations, it meshes with the province's concrete situation, and is the first local water resource regulation for the province since the establishment of the PRC. With it, provincial water management will have laws to rely on and follow. In sum, the issuing of these "Regulations" was extremely necessary.

[Question] Water conservation departments are for the comprehensive management of water resources. How will the water conservation departments implement these "Regulations"?

[Answer] Water conservation departments are for the comprehensive management of water resources. This is stipulated by the State Council. When drafting the "Regulations," the province, following the spirit of the State Council decision, made water conservation departments serve as the departments for the comprehensive management of water resources. So-called comprehensive management refers to unified management and providing good-quality service in water management work for the whole society and for the whole national economy. To complete this task, this requires that our water conservation departments closely cooperate with relevant departments. It requires first that our water conservation department comrades conscientiously study the relevant national laws and regulations, study the "Regulations," energetically overcome department limitations, take the interests of the whole as the point of departure, raise awareness of the comprehensive use, rational development, and societywide economic interests of water resources, give good service to all departments for the national economy and people's livelihood, and at the same time require the staff of our water management departments to closely, and on their own initiative, cooperate with relevant departments, open-mindedly listen to and conscientiously study all the problems and suggestions which they suggest, patiently talk things over, closely cooperate, and rely on government leadership at all levels and the support of all departments.

[Question] What are the current points of emphasis to be seized in strengthening water resource management?

[Answer] The points of emphasis in water resource management are to realize the comprehensive development and utilization of water resources and the unified allocation and management of water resources. Practically speaking, I think we should as quickly as possible get a handle on the following affairs:

1. Establish and perfect at all levels as quickly as possible a comprehensive management structure for water resource management.

2. In order to insure the implementation of the "Regulations," it must be drawn up in detail and have a whole series of management methods.

3. The significance and substance of the "Regulations" are to be energetically disseminated.

4. Ruthlessly seize the work of saving water and preserving water resources.

[Question] Why must water fees be levied in agricultural irrigation, and what is the standard for judging and setting water fees?

[Answer] Water supplied for agricultural irrigation comes from irrigation works, and, especially for large- and medium-scale irrigation works, the nation must invest large quantities of manpower, material, and money to construct irrigation works for water retention and transportation. Once the projects are completed, their maintenance and management require the yearly expenditure of large amounts of operating funds. Irrigation water is a product materialized through labor, is full of use value and economic value, and its provision should be managed according to economic laws. The "Water Works Water Fee Methods for Pricing, Collection, and Management" promulgated by the State Council 22 July 1985 stipulates that all water conservation works practice rewards for providing water and that industry, agriculture, and all other water users should pay water fees to water works management units according to the regulations. By implementing fees for supplying water and having users buy water with money, attention will be paid to economy, water conservation project management units will have an income, and it will be possible to ensure that project management is active, repairs made, and renovation performed, the highly efficient use of water resources promoted, and that there will gradually appear a felicitous recycling of water conservation funds. All of this benefits the nation and masses.

With regard to the standards for judging and setting water fees, it is clearly stipulated for all kinds of uses of water in a special section concerning water fee methods which the State Council promulgated that the general principle is for agricultural water fees to be judged and set according to costs for providing water, and agricultural and city livelihood water fees are to be for the cost of providing water plus an appropriate profit. Ninety percent of all the water provided in the province is used in agriculture, but payments are taken for water used in agriculture only according to costs. Increases in agricultural production still supplies the portion from which most farmer income is derived. Viewed in the long term, rewards for supplying water and maintaining water conservation project's normal production circles are also in the farmers' interest. Otherwise, since water conservation projects would be short of funds, it would be difficult for project management to be active, major repairs made, and renovations performed. It would be impossible to guarantee agricultural irrigation water resources. In the end, the farmer would still be the one to lose.

13152/13046
CSO: 4007/280

HEBEI

BRIEFS

HEBEI COTTON EXPORTS--Hebei Province opened up a new situation in cotton exports this year. By 20 March, it had signed contracts with eight countries, including Britain, the United States, Japan and Italy, on exporting 44,800 tons of cotton, amounting to 89.6 percent of the province's annual cotton export plan. [Excerpt] [Shijiazhuang Hebei Provincial Service in Mandarin 2300 GMT 26 Mar 86 SK] /12232

CSO: 4007/363

JILIN REPORT ON ECONOMIC, SOCIAL DEVELOPMENT PLAN

SK092250 Changchun JILIN RIBAO in Chinese 23 Mar 86 p 2

[Report on "Jilin Provincial 1986 Plan for National Economic and Social Development (draft)" given by Li Decheng, director of the Jilin Provincial Planning and Economic Commission, at the Fourth Session of the Sixth Jilin Provincial People's Congress on 9 March]

[Excerpts] Fellow deputies:

Entrusted by the provincial people's government, I will now submit to this session a report on the fulfillment of the Jilin provincial 1985 plan for national economic and social development and on the arrangements for the 1986 plan for your examination and discussion.

1. The Fulfillment of the 1985 Plan

The year 1985 was the last year for implementing the Sixth 5-Year Plan. With the guidance of the guidelines of the 3d Plenary Session of the 12th CPC Central Committee, the people of various nationalities throughout the province united as one, and worked hard. The "Report on the Jilin Provincial 1985 Draft Plan for National Economic and Social Development" discussed and approved at the Third Session of the Sixth Provincial People's Congress was fulfilled better than expected, and new progress was achieved in the national economy and other various social undertakings. The gross industrial and agricultural output value of the province reached 30.2 billion yuan, a 9-percent increase over 1984; the revenue was 2.167 billion yuan, a 22-percent increase over 1984 in terms of comparable standards; and the national income was 16.97 billion yuan, an 8.8-percent increase over 1984.

A new situation emerged in which production and circulation were mutually promotive, growth rate and economic results increased simultaneously, development of production linked closely with improvement of the people's living standards, and the relations among the major sectors of the national economy became more balanced. The economy of our province is marching toward the road on which the growth rate is fairly realistic, economic results are better, and the people can gain more real benefit.

We conquered serious natural disasters, and wrested a fairly good harvest in agriculture. Last year while continuing to improve the output-related contract responsibility system, the rural areas carried out the second step of the reform, further readjusted the production setup, and held large-scale discussions on ways of becoming better off, thus sparking the peasants' enthusiasm for developing commodity production. Under the leadership of CPC committees and government at all levels, and with the great support of the PLA, the people throughout the province went all out in the work, and conquered the serious natural disasters.

The agricultural harvest was better than expected. The total grain output of the province was 12.25 million tons, the third highest since the founding of the country. The province procured and purchased through negotiations 4.5 million tons of grain, which was also a fairly high figure. In grain production, we increased paddyfields by 570,000 mu, and made the total paddyrice output reach 1.837 million tons while maintaining a stable growth in corn. Soybean fields increased by 1.22 million mu, and its output reached 904,000 tons. Fairly good harvests were also reaped in cash crops, such as beets, oil-bearing crops, and flue-cured tobacco. The output of oil-bearing seeds was 484,000 tons, that of flue-cured tobacco 15,000 tons, that of beets 877,000 tons, and that of ginseng 5,167 tons. The output value of cash crops registered a 10.5-percent growth over the previous year, and they still provided a fairly great amount of raw materials for industrial production in a year of serious disasters.

Animal husbandry showed great improvement. Last year the animal husbandry output value reached 1.26 billion yuan, up 36.2 percent from the previous year, and its proportion in the total agricultural output value rose from 10.4 percent in the previous year to [words illegible]. The price decontrol of hogs changed the situation in which the number of hogs in stock had declined for 4 years in succession. The year-end number of hogs in stock reached 4.97 million, 20.6 percent over the previous year; that of draft animals was 2.946 million, a 5.4 percent increase. The output of pork, beef, and mutton was 299,000 tons, an increase of 14.1 percent; the number of poultry went up to 49.35 million, an increase of 31.5 percent; the output of eggs was 172,000 tons, an increase of 9.2 percent; and that of aquatic products was 29,600 tons, an increase of 38.3 percent.

In the development of township enterprises, a new situation emerged in which townships, villages, household groups, individual households, and other cooperative associations competed with one another in establishing the enterprises. Both the output value, and the profit and taxes of the enterprises showed substantial increases. According to statistics of comparable items, their output value reached 3.92 billion yuan, up 22 percent from the previous year. Despite the fact that the grain output of the province declined by more than 3 million tons from the actual figure of the previous year, its agricultural output value reached 8.68 billion yuan (including the output value created by the industrial enterprises at and below the village level), showing a decline of merely 3 percent from the previous year.

Through wide activities to provide for ourselves by production, we achieved greater development in the diversified economy, repaired the works damaged by floods very quickly, and thus created favorable conditions for restoring agricultural production to a level prior to the disasters.

2. The Tasks and Major Targets of the 1986 Plan

This year is the first year for implementing the Seventh 5-Year Plan, and it is very important to successfully work out this year's plan. Based on the central authorities' proposal for the Seventh 5-Year Plan, and the work tasks defined by the provincial CPC committee and government for this year, the focal points as arranged in the 1986 plan for national economic and social development are: to achieve a greater success in the key construction projects of energy, postal and telecommunications, and raw material industries, and step up the technical transformation of the existing enterprises; to greatly develop the production of readily marketable commodities, increase market supplies, and maintain a basic stability in commodity prices; to intensify the development of intellectual resources so as to train more talented people and upgrade science and technology; to expand foreign economic and technological exchanges, and raise the level of foreign exchange earning through exports; and to strive to improve the people's living standards on the basis of developed production.

The major targets of the plan are: to make the gross industrial and agricultural output value reach 32.47 billion yuan, a 7.5 percent increase over last year; to restore agricultural production to a level prior to the disaster, making the grain output reach 15 million tons, and the agricultural output value increase by 6 percent; to achieve a sustained, stable, and coordinated development in agriculture, and to increase the industrial output value by 8 percent while arranging for production in line with a 10-percent increase target; and to make the national income reach 18.24 billion yuan, a 7.5-percent increase over last year. Specific tasks and major targets of various plans are arranged as follows:

Restore Grain Production to a Level Prior to the Disasters, and Achieve Great Development in Animal Husbandry and Township Enterprises.

This year it is necessary to further readjust rural production setup, accelerate forestry, animal husbandry, sideline production , fisheries, and diverse undertakings in line with local conditions and on the premise of stepping up grain production, and spur the rural economy to develop toward specialization, commercialization, and modernization.

In grain production, we should continue to give play to the advantage of corn, actively develop paddyrice production, and properly increase soybean areas. The planned grain output will be 15 million tons, 2.75 million tons more than last year. The planned corn acreage will be 26 million mu, 810,000 mu more than last year; and its output will reach 10 million tons, an increase of 2.07 million tons. Paddyfields will reach 5.55 million mu, 700,000 mu over last year (including vinyl-covered areas and areas for upland rice); and the output will be 2.25 million tons, an increase of 400,000 tons. Soybean acreage will be 8 million mu, 850,000 mu more than last year; and its output wil reach one million tons, 100,000 tons more than last year. Grain purchasing contracts should be improved continuously, and a series of policies encouraging grain production should be adopted to further arouse the peasants' enthusiasm for grain production.

We should strive to improve agricultural production conditions, popularize the advanced technologies of resisting low temperatures and accelerating ripening, and step up the farmland improvement projects focusing on preventing waterlogging. We should collect funds from various sources, do a good job in the supply of the means of production, and increase investment in grain production to ensure a steady growth.

It is necessary to vigorously develop cash crops. Under the plan, the output of beets should reach 1.2 million tons, up 36.8 percent over the previous year; that of flue-cured tobacco 18,000 tons, up 20 percent; anad that of oil-bearing seeds 625,000 tons, up 29.1 percent. Beets, sunflower seeds, flue-cured tobacco, and red sun-cured tobacco should be cultivated and purchased in line with contracts in order to meet the needs of markets and industrial production.

The diversified economy with an emphasis in animal husbandry should be vigorously developed. We should fully display our province's favorable conditions of plentiful grain and ample animal feed resources, and prominently grasp the production of hogs, cattle, sheep and pultry. Under the plan, the number of hogs slaughtered should reach 3.5 million, an increase of 8.5 percent over last year; the number of cattle in stock should reach 1.85 million, an increase of 5.2 percent; the number of sheep in stock should reach 1.9 million, an increase of 6.2 percent; the output of pork, beef, and mutton should reach 305,000 tons; and egg output should reach 175,000 tons. It is necessary to fully use the existing water areas for developing fisheries. We should give priority to developing fish farming using purseu seine and precision pond fisheries and to supporting areas with favorable conditions to carry out large-scale fish farming undertakings. Under the plan, the fish output should reach 30,000 tons. In forestry, we should implement the policy of using forest resources to support forestry, combine tree felling with planting, pay attention to building forests, and continue to build forest shelterbelts in northwest, north, and northeast China. It is planned that the afforestation area should reach 3 million mu. It is necessary to vigorously develop the production of native products with a focus on ginseng. Under the plan, ginseng output should reach 5,500 tons.

In township enterprises, we should implement the policy of "actively supporting them, making rational plans for them, giving them correct guidance, and strengthening management," focus the work on agriculture with an emphasis in the development of such service trades as processing, strong, packing, and transporting farm products. Areas where conditions permit should develop mining and the building materials industry. Under the plan, the output value of these two sectors should show an increase of 27.6 percent respectively over last year. Vigorous support should be given to township enterprises in terms of technology, competent personnel, funds and material resources.

/9871
CSO: 4007/361

PRICES DEREGULATED ON NON-EXPORT TIMBER

Beijing ZHONGGUO XIANGZHEN QIYE BAO in Chinese 20 Nov 85 p 2

[Article from FORESTRY NEWS: "Jilin Province Deregualtes Prices of Nondesignated Timber"]

[Text] At the Jilin Province economic planning committee conference on 1 August 1985, the Financial Bureau, Price Bureau, Materials Bureau and Forestry Bureau recently made a joint announcement that they will deregulate the prices of all nondesignated timber (meaning timber not used for export, shipment out of the province, and timber used by the enterprise that produces it) and will institute bilateral buyer-seller negotiation of prices. The basic method is as follows:

1. Nondesignated timber will be deregulated and prices will be determined by supply and demand and by bilateral negotiation. Designated timber and nondesignated timber will be sold separately and will be accounted for separately. Mixing of accounts will not be permitted.

2. The timber-selling sections must base their prices for nondesignated timber on the principle of reasonable expenses, according to pricing methods established by the province, considering type, quality, and diameter before setting a price and offering the goods for sale.

3. The cutting of timber should be within the limits of the amount established by the plan. The plan for felling timber should be established only after careful examination by the forestry bureau.

4. After deregulation of nondesignated timber, the profits earned by forestry sections should be used principally for replacing lower-value forests, fomenting reforestation, and developing rapid-growing and productive forests as well as projects to improve general profitability and to develop more varieties of timber products. Use of these funds for other purposes will not be permitted.

9990/9190
CSO: 4007/173

AGRICULTURAL TAX REDUCED BECAUSE OF DISASTERS

Beijing NONGMIN RIBAO in Chinese 30 Oct 85 p 1

[Article by Song Xunfeng [1345 6676 7364]: "Jilin Province Readjusts Agricultural Taxation: Small Decreases for Those With Light Damage, Large Decreases for Those With Heavy Damage, Exemption for Especially Heavy Damage"]

[Text] This year, Jilin Province has suffered unusually severe natural disasters. This has not only caused serious harm to agricultural production, but also has caused several new conditions and problems in the apportionment of agricultural yields. Faced with actual disaster conditions in the whole province, the provincial government has made several adjustments in its agricultural profit apportionment policy in order to safeguard and mobilize the positive aspects of expanded agricultural development and production of commercial goods.

In its post-readjustment agricultural profit apportionment policy, the Jilin provincial CPC and provincial government have established the following rules:

Collection of agricultural taxes shall be based on the principle of small decreases for minor damage, large decreases for heavy damage, and complete exemption for especially heavy damage, calculating levies by household, examining damages, and reducing evasion. All grain storehouses and grain bureaus which purchase grain shall carefully check quality and weight, deducting in a fair and equitable manner, insisting on treatment in accordance with each household's production; without the farmer's agreement, not allowing collection by proxy or reciprocal collection of funds. For heavy damages, the amount of reduction shall be greater; in places where it is difficult to fulfill contract requirements, the contractual overall spending for public affairs and capital construction shall be decreased, and this year's shortfall should be deferred to the following year. Depending on the extent of damage, payments to the reserve fund may be decreased or omitted; payments to public welfare funds or investment funds may also be decreased or omitted. Remuneration levels for cadres and other personnel in affected areas shall be decreased in accordance with the reductions in receipts in those areas. In heavily affected areas, profits submitted to township, village, and local enterprises may be used to meet overall planning requirements for funds in those areas; furthermore, some can be paid from investment accounts of public welfare funds or from support given by county or township financial bureaus.

After readjustment of contracts, in principle they should be fulfilled this year; peasants who really are unable to fulfill them may sign new contracts which can be fulfilled over an extended period of time. As for extra-contractual apportionments, peasants have the right to refuse to pay. Where the disasters were most severe, a part will be satisfied by a short-term loan; for those with no production or very little production, the loan payments will be deferred. Because the disasters have created shortages in food grains and in animal feed, these shortages will be resolved by shipments from national storehouses. All sections concerned should give preferential treatment for Jilin Province's capital, material, and technical needs.

9990/6091
CSO: 4007/162

AGRICULTURE THRIVING IN SHAANXI PROVINCE

Xi'an SHAANXI RIBAO in Chinese 6 Nov 85 p 3

[Article: "The Agricultural Front Is Thriving"]

[Text] For the past several years, our nation's grain production has been increasing considerably. The average grain production per person is 400 kg, which is close to the world average.

In 1984, the total value of our province's rural cooperatives was 61 percent greater than the 1978 figures (calculated in constant yuan], which shows an average yearly increase of 8.3 percent. The total agricultural production of these cooperatives increased by 44 percent or an average of 6.3 percent per year. During the 29 years from 1949 through 1978, the average yearly increase was only 3.9 percent.

This year, in spite of severe natural disasters in the summer and fall seasons, the total grain production amounted to 18.1 billion jin, which is the third best year ever for our province.

The state of Shaanxi's livestock production is also favorable. In the first half of this year, stocks of hogs exceeded 6.7 million head, an increase of 5.4 percent over the same period last year, and lean pork production increased especially quickly. Through the end of June, the total production of meat in Shaanxi was more than 230 million jin, an increase of 16.4 percent over the same period last year.

The commodity rate of agricultural goods in Shaanxi has also been steadily increasing. The total value of purchases of secondary food products by cooperatives increased from 1.35 billion yuan in 1978 to 2.96 billion yuan, an increase of 120 percent, or 13.8 percent per year. The commodity rate increased from 34 to 40 percent.

There has been a change in the relative value of production in the areas of agriculture, forestry, animal husbandry, secondary food products, and fisheries in our province. The proportion of rural production from planted fields decreased from 77.3 percent in 1978 to 69 percent in 1984 while the proportion of forestry, livestock, secondary food, and fish production increased from 22.7 to 31 percent. In 1984, individually managed production amounted to 3.02 billion yuan or 40 percent of total agricultural production, which is an increase of 52.7 percent over the 1930 level of 1,977,000,000 yuan.

In 1984, the number of agriculture-specialized households increased to 271,000, which is 4.98 percent of the total number of rural households. Besides, there have been established 1,884 specialized villages and over 10,000 farms connected with new economic zones. Total receipts of these three kinds of rural enterprises have reached 1.3 billion yuan.

9990/9190
CSO: 4007/167

SALES FORECAST FOR AGRICULTURAL USE VEHICLES

Beijing ZHONGGUO NONGJIHUA BAO in Chinese 26 Jan 86 p 3

[Article by Qin Xin [4440 0207]: "Sales Forecast for This Year's Shaanxi Agricultural-Use-Trailer Sales"]

[Text] According to Shaanxi farm machinery information network reports, the 1985 sales forecast for farm-use trailers was for over 8,000, down 25 percent from last year. It included more than 400 twin-axle trailers, an increase of more than 100 percent. There were more than 8,000 single-axle trailers, a drop of about 26 percent. Sales for last year's fourth quarter market improved somewhat. According to changes in the tractor market, this year's farm-use trailer sales look good.

1. The nation's farm machinery commodity orders will rise. Small tractors will increase 129,434 units over 1985, a 21.6-percent increase. It includes a 54.2-percent increase in small four-wheel tractors, and a 13.6-percent increase in hand-held tractors. If contracted orders are all realized, farm-use trailer sales will increase accordingly.

2. The Baoji Vehicle Factory is a focal factory for production of farm-use vehicles in Shaanxi Province. Last year's factory output was 1,000 vehicles, but supply did not meet demand. It is forecast that production conditions for this year will be even better.

3. The Xi'an Farm Machine Factory, Xi'an Diesel Machine Factory, and Xi'an Tractor Factory are Shaanxi Province's major factories for the production of small four-wheel tractors. Last September, having passed licensing inspection by the Machine Industry Bureau and Agriculture, Animal Husbandry, and Fisheries Bureau, quality met first-class standards. Farm-use trailers are a matching product for four-wheel tractors, and the quantity of trailers needed will increase along with the development of tractor production.

According to analysis of the above situation, Shaanxi Province's sales situation for farm-use trailers looks good for this year. Sales will be slightly higher than 1985 levels, with about a 10-percent rate of increase, and predicted total sales of over 9,000 vehicles.

13152/13046
CSO: 4007/280

BRIEFS

GRAIN PRICES RISING--According to NONGJIA XINSHI BAO [PEASANT MESSENGER], the general situation in the province's grain markets is one of considerable shortage of supply and rising prices since the beginning of spring. The prices of major grains such as rice, wheat, sorghum, soybeans, and maize show considerable increases compared with this time last year. Grain prices are still rising in many places. The price of wheat in Fengxiang County has now risen to 0.6 yuan per jin. [Text] [Xian Shaanxi Provincial Service in Mandarin 0200 GMT 31 Mar 86] /9871

CSO: 4007/361

SHORTAGE OF SOYBEANS IN SHANGHAI AREA

Beijing NONGMIN RIBAO in Chinese 9 Nov 85 p 2

[Article: "Shortages and Price Increases in Shanghai Economic Area Soybean Market"]

[Text] During the last several years, because of rapid development of national soybean production, the supply has been sufficient for demand, causing the total area devoted to the cultivation of soybeans to decrease recently and resulting in declines in procurement. Furthermore, as a result of increases in this year's exports of soybeans from China and an increased number of newly developed food items made from soybeans on the domestic market, market demand has been increasing and soybean supplies have started to tighten up. Now, because the supply of soybeans in several Jiangsu Province cities in the Shanghai economic zone have started to show a decline to one-half their planned level in June, supplies of soybean products are extremely tight. At the same time, shipments of soybeans from Shandong, Henan, Anhui, and other provinces to the Shanghai area have declined noticeably. The reason is that supplies are low; from January to June 1985, Shanghai food product wholesalers negotiated the purchase of only 4,195 dan, a decrease of 30 percent from the same period last year. At present, because the amount of soybeans allocated by plan to the Shanghai market has decreased sharply and both purchases and sales have declined, supplies of soybeans at many retail grain stores have been completely depleted.

Because of tight soybean supplies, numerous units in the Jiangsu, Jiangxi, Zhejiang provinces, Shanghai City, and other provinces and cities of the Shanghai economic area have proposed and developed new procurement and sales plans for soybeans and have even competed with each other to purchase stocks; demand for supplies has become quite intense. To give one example, the Jiangxi provincial grain and oil trading company, in order to secure supplies, once even ordered 3,000 tons of soybeans from the Heilongjiang provincial sales section, paying in advance for later delivery. Because of the tightness of soybean supplies, market prices have also started to rise. For example, 3-month future prices of mixed soybeans in the Shanghai area are now 0.32 to 0.33 yuan per jin; 5-month future prices have risen to 0.33 to 0.345 yuan; 7-month futures have risen further to 0.35 to 0.36 yuan. In order to obtain supplies early, some untis have raised the price for new purchases to as high as 0.375 yuan per jin.

9990/9190
CSO: 4007/173

INCREASED EXPORTS OF LIVESTOCK PRODUCTS

Chengdu SICHUAN RIBAO in Chinese 2 Nov 85 p 1

[Article prepared by provincial livestock products export-import company: "Another Solid Result of Implementing the Open Door Policy; Sichuan Livestock Products Sold on Three Continents; Our Province's Livestock Product Exports and Foreign Exchange Earnings Increase"]

[Text] Following the party's open door policy and its policy on revitalizing-the domestic economy, the development of Sichuan's livestock, housebird, and housepet enterprises has been favorable and has supplied a large quantity of livestock products for export. The variety of exports has increased considerably, the value of exports has risen steadily, and foreign exchange earnings have gone up.

At present, livestock product exports from Sichuan include pig bristle, pork-sausage casings, goatskins, feathers, rabbit fur, pigskin, and feedstuffs. Industrially processed export goods include leather shoes, sheepskin and pigskin clothing, down-stuffed clothing, and pig-bristle brushes. Several of these products were exported for the very first time this year. By now, the provincial livestock products export-import company has established trade relationships with all kinds of customers from over 20 countries and areas in Europe, Asia, North America, and the Middle East, including Hong Kong, Macao, the United Kingdom, France, The FRG, Italy, Sweden, Norway, the Netherlands, the United States, Japan, etc. Exports for the first 9 months of this year have increased 44 percent from last year's levels.

Several varieties of Sichuan's livestock product exports have already acquired special qualities of their own which are highly appreciated by foreign buyers. One of these is the Sichuan gray duck down produced in our province; its down feathers are large and its color and luster are excellent; it is only produced as an export item and is more suitable for export than similar domestic products are. Our province's leather working gloves, due to an emphasis on quality of workmanship and prompt deliveries, have also established a good reputation with customers. The pork-sausage casings, because of their fine export quality, already have a number of customers who make special trips to Sichuan to buy them and who are even asking for increased supplies. Some have even asked to become sole agents.

Leather garments are a new export item this year; because of their fine-quality workmanship and high level of fashion, they are well received by customers in West Germany.

While it is developing direct objects, the provincial livestock products export-import company has been introducing advanced technology and machinery in order to satisfy the international marketplace's standards for high-quality, attractive export goods. In recent years, the provincial livestock products export-import company industrial sections have introduced partial mechanization for leather goods and down goods manufacture, have imported raw materials and secondary materials necessary for productivity and have discussed and signed a partial technical cooperation agreement.

9990/9190
CSO: 4007/173

MORE HOUSING BEING BUILT FOR SICHUAN PEASANTS

Chengdu SICHUAN RIBAO in Chinese 1 Nov 85 p 2

[Article by Wang Zihe [3769 1311 0735]: "Homes for a Million Peasant Households Built; Demand for Building Materials Is High and Supply Is Low"]

[Text] In recent years, the Sichuan rural economy has been developing rapidly and peasants' incomes have been continually increasing. More peasants are improving their housing conditions and the demand for building materials has risen considerably. According to adjusted official statistics for 1984, 945,000 rural houses were constructed, housing 4.6 percent of the total rural population and representing an investment of 1.6 billion yuan. Total area of the houses built was 57.23 million square meters, 9.7 percent higher than the year before. Total expenditures for building materials for these houses increased 37.8 percent over 1983 levels.

So far this year, construction of rural buildings continues to increase, but the rate of increase has declined, quality has improved, and the construction of buildings for productive purposes has increased more rapidly than the construction of residences. From relevant material and representative adjusted estimates, total construction of buildings in the province will be around 980,000 units, covering a total surface area of 60 million square meters, an increase of 5 percent over last year, but not increasing as rapidly as the 1984 increase of 9.7 percent. Among newly constructed buildings, those built of brick and wood make up 45 percent of the total; those of earth and wood, 30 percent; and those of concrete, 25 percent. Because of changes in the makeup of rural production involving increased numbers working in industry, commerce, food and drink services, and transportation, the number of buildings constructed for production and administrative work has increased considerably this year. They will increase to 14 million square meters, 12 percent higher than last year, and they will occupy a proportion of the total building surface which is increasing from 22 percent last year to 23.3 percent this year. Newly built living quarters will increase to 46 million square meters, an increase of only 3 percent over last year, and the proportion of building space used for living quarters will decrease to 76.7 percent. The following reasons have been given for the lower rate of increase in rural construction this year: controls have been established on use of land, the state has indicated that any plans for using land must receive the approval of governmental levels above the county level, and strict restrictions have been set on misappropriation of cultivated land; banks and credit cooperatives have stopped issuing building loans; some building materials are in tight supply and supply-demand deficits are great.

Rural construction requires large quantities of building materials. In Sichuan, just the sales and distribution of building materials amounted to a value of 41.13 million yuan, 150 percent greater than the sales for the preceding year. Even this could not satisfy market requirements and there was an especially great discrepancy in the supply and demand of important materials. Based on predictions, Sichuan rural construction will require 43,000 tons of steel, 270,000 cubic meters of lumber, 500,000 cases of glass and 700,000 tons of concrete. However, planned available supplies are only 7,000 tons of steel, 20,000 cases of glass and 10,000 tons of concrete. Supply-demand discrepancies are tremendous, so bidding for building materials in short supply on the market is quite brisk. Supplies of other hardware items, such as nails, galvanized wire, bolts, door-knobs, and window handles, are also not sufficient for demand. Because of faster rural production of these materials in recent years, common bricks, tiles, and cement are basically sufficient for the demands of rural construction.

Currently, not only is there demand for a large quantity of building materials in rural areas, but also demands for quality materials have increased. Ceramic tiles, mosaic tiles, and other high-grade building materials have been selling at an ever-increasing rate; besides, some light assembled materials are more and more in demand. As a result, while the units involved are organizing building material production, on the one hand, they must accelerate the rate of development in order to continue to increase market supply capabilities, and, on the other hand, they must seriously work on pioneering new products which can appropriately satisfy the needs for new kinds of materials.

9990/9190
CSO: 4007/167

ZHEJIANG

ZHEJIANG RURAL HOUSEHOLDS INCREASE INCOME

OW311104 Beijing XINHUA in English 1046 GMT 31 Mar 86

[Text] Hangzhou, 31 March (XINHUA)--Half of the rural households of East China's Zhejiang Province had a per capita income of over 500 yuan in 1985, a provincial official said today.

The average per capita income of Chinese peasants was 397 Yuan last year, according to the State Statistical Bureau.

Zhejiang's comparative affluence "is due to a series of bumper crops," the official said.

During the Sixth 5-Year Plan (1981-1985), Zhejiang's average annual grain output increased to 16.3 million tons, up from 13.85 million tons during the previous 5 years.

As a result of the good harvests, the official said, only 3.1 percent of the peasant households in Zhejiang still lack basic food and clothing.

He said 7.4 percent of the province's rural residents' per capita income surpassed 1 thousand yuan, and that of another 43.3 percent households was between 500 and 1,000 yuan.

Altogether, the province's economic crops have generated a net income of 1.124 billion yuan for local peasants.

The opening up of new service industries employing 6 million peasants has also been a factor in the recent rural prosperity, according to the official.

/12232
CSO: 4020/277

Veterinary Science

IMMUNIZATION METHOD WITH TRIVALENT HOG VACCINE

Lanzhou ZHONGGUO SHOUYI KEJI [CHINESE JOURNAL OF VETERINARY SCIENCE AND TECHNOLOGY] in Chinese No 11, 20 Nov 85 pp 10-12

[Article by Sichuan Provincial Veterinary Drug Machinery Company, Chengdu Drug Machinery Plant of the Ministry of Agriculture, Animal Husbandry and Fishery, and the Linshui County Animal Husbandry Bureau of Sichuan Province]

[Abstract] The trivalent hog vaccine is effective against hog plague, hog erysipleas, and hog pneumonic plague; the vaccine was developed by a joint scientific research team consisting of seven units led by the China Animal Drug Supervisory Office. This is a joint bacteria-virus vaccine developed from hog plague 54-III mycorrhizae, as well as hog erysipleas GC42 and hog pneumonic plague Eob30 mycorrhizae. This is one of the plague vaccines first developed in China; each dose contains 150 immunizing units. The vaccine has been in use since the 1970s. Generally, efficacy was proven though scattered cases of hog plagues occurring at different times. The paper reports on observations of vaccine use in 1984.

Generally, if 2-month-old piglets are vaccinated, immunization against hog erysipelas and hog pneumonic plague is effective; however, a certain proportion of piglets is incapable of becoming immunized against hog plague with a dose of 150 immunizing units. This is why there have been scattered cases of hog plague. It may be possible to wipe out these cases with a dose strength greater than 150 units. Only tests can tell. The paper was written by Gao Ruilun [7559 3843 0243] of the Chengdu Drug Machinery Plant. The paper was received for publication on 19 February 1985.

10424/12951
CSO: 4011/19

PATHOLOGICAL STUDY OF ARTIFICIAL INOCULATION OF HOG PLACUE HIGH TOXIN--VARIATIONS OF ORGAN AND INNER RETICULAR FIBERS OF LYMPH NODES

Lanzhou ZHONGGUO SHOUYI KEJI [CHINESE JOURNAL OF VETERINARY SCIENCE AND TECHNOLOGY] in Chinese No 11, 20 Nov 85 pp 12-14

[Article by Sang Yuzhou [2718 7183 0719] of the Food Department, Hangzhou Commerce College, Ye Junhua [5509 6511 5478] of Western Tianjin Suburb Sanitation and Epidemic Control Station, and Sun Biancheng [1327 6708 1004] of Changsha Municipal Sanitation and Epidemic Control Station]

[Abstract] The reticular fibers support the frame of a swine body. Once the tissues of an organ are impaired or repair is ongoing, the reticular fibers have been subjected to variations with collagenization, agglutination, or dissolving via liquefaction. Dyeing with reticular fibers can produce very clear displays even for a tiny focal necrosis, which appears very blurred with H.E. dyed slide. Therefore, the variations of reticular fibers provide a useful guide in diagnosing diseases. In 1962, Wan Misheng [5502 3046 3932] described the variations of the basic mesenchyma in some organs for hog plague cases. The paper reports on 35 cases of the artificial inoculation of hog plague high toxin with observations on reticular-fiber variations in the heart, liver, spleen, lungs, kidney and lymph nodes. The materials used were fixed with 10-percent formalin and made into paraffin slides before employing the Gordon-Sweet silver coated dyeing method for microscopy of reticular fibers. For selection of animals and methods of relieving the toxin, please see ZHONGGUO SHOUYI KEJI, No 9, 1985.

10424/12951
CSO: 4011/19

END

JPRS-CAG-86-018

2 MAY 1986

China Report

AGRICULTURE

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-018

2 MAY 1986

CHINA REPORT
AGRICULTURE

CONTENTS

NATIONAL

Problems in Restructuring of Rural Economy
(NONGYE JISHU JINGJI, No 11, Nov 85) 1

Rural Household Receipts, Expenditures Rise Unevenly
(NONGMIN RIBAO, 26 Nov 85) 9

Agricultural Loans Increase 30 Percent in 1985
(Zhao Zekun; NONGMIN RIBAO, 25 Jan 86) 11

Outlook for Pork, Egg Supplies Until First Quarter 1986
(NONGMIN RIBAO, 23 Nov 85) 12

Need To Maintain Grain Production Underscored
(Ding Shengjun; NONGYE JISHU JINGJI, No 9, Sep 85) 14

Spokesman Says Drop in Grain Area Reduced
(ZHONGGUO XINWEN SHE, 17 Apr 86) 23

Various Ways To Reduce Cotton Glut Explored
(Hong Wujin, et al.; NONGYE JINGJI WENTI, No 10, 23 Oct 85) 24

TRANSPROVINCIAL AFFAIRS

Rural Economic Development in Western China Outlined
(Lei Xilu, et al.; NONGYE JISHU JINGJI, No 10, Oct 85) ... 34

ANHUI

Completion of Fall Grain, Oil Procurement, Planting Urged
(ANHUI RIBAO, 9 Nov 85) 42

BEIJING

Briefs
Expanded Grain, Oil Products 45

HENAN

HENAN RIBAO Cited on Drop in Meat Egg Prices
(Henan Provincial Service, 10 Apr 86) 46

HUBEI

Land Management Responsibility System Shows Gains
(Hubei Provincial Service, 15 Apr 86) 47

HUNAN

New Provincial Agricultural Taxes Announced
(ZHONGGUO CUNZHEN BAIYE XINXI BAO, 18 Nov 85) 48

Briefs
Hunan Government Assists Areas 49

SHANXI

Broadcast Comments on 'Good Use of Investment'
(Shanxi Provincial Service, 9 Apr 86) 50

Party Leader Calls for Better Water Conservancy
(Shaanxi Provincial Service, 1[illegible] Apr 86) 52

SICHUAN

Grain Production Not To Be Reduced in Readjustment
(Hou Shuqing; SICHUAN RIBAO, 30 Jan 86) 53

Sales of Vegetable Oil Rise To Meet Demand
(Chen Yunzhao; SICHUAN RIBAO, 24 Jan 86) 55

Rise in Peasant Income, Living Standards Reported
(SICHUAN RIBAO, 29 Oct 85) 56

XINJIANG

Progress, Problems, Prospects for Cotton Production
(Tian Yuanjun; NONGYE JINGJI WENTI, No 10, 23 Oct 85) 58

ABSTRACTS

BIOCHEMISTRY

SHENGWUHUAXUE YU SHENGWUWULI XUEBAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA], No 6, Nov 85 66

MECHANIZATION

NONGYE JIXIE XUEBAO [TRANSACTIONS OF THE CHINESE SOCIETY OF AGRICULTURAL MACHINERY], No 4, 25 Dec 85 67

VETERINARY MEDICINE

XUMU SHOUYI XUEBAO [ACTA VETERINARIA ET ZOOTECHNICA SINICA], No 3, Aug 85 68

WATER CONSERVATION

RENMIN HUANGHE [THE PEOPLE'S YELLOW RIVER], No 5, 26 Oct 85 69

RENMIN HUANGHE [THE PEOPLE'S YELLOW RIVER], No 6, 26 Dec 85 72

PROBLEMS IN RESTRUCTURING OF RURAL ECONOMY

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 11, Nov 85 pp 1-4

[Article by Survey Unit, Chinese Academy of Agricultural Sciences: "Several Problems in the Current Restructuring of the Rural Industrial Structure"]

[Text] Editor's note: In order for research work in the agricultural sciences better meet current needs in development of rural villages, the Chinese Academy of Agricultural Sciences organized 22 survey teams from 14 research institutes including those for farm crops, paddy rice, cotton, oil-bearing crops, hemp crops, tobacco, sugarbeets, Xingcheng fruit trees, Zhengzhou fruit trees, citrus, vegetables, agricultural economics, zoning, and intelligence to conduct surveys during July and August 1985. They traveled to more than 60 villages in 38 counties in 1 different provinces, cities and autonomous regions throughout the country where they conducted surveys related to the work of their own institute after which they collated it for discussion and study. They also compiled an overall report on several problems in the current readjustment of the rural industrial structure, which is published below for use as reference. [End of editor's note]

I. The Problem of Correct Appraisal of the Rural Situation

During the past several years, rural villages have developed quickly; the situation is good in them, and the peasants' standard of living has improved markedly. Between 1978 and 1984, per capita income increased from 134 yuan to 355 yuan in a 1.6 fold increase. Agricultural products increased tremendously. During the past 6 years, gross output of grain has increased 33 percent; and the amount of grain per capita has risen rapidly from the long-standing 600 jin to 800 jin. Cotton output has increased 1.6 fold, and the problem of sufficient food and clothing for the broad masses of peasants has been substantially solved. Nevertheless, some new situations and new problems have arisen that merit serious attention.

One problem is the present unevenness in rural development. As a result of the implementation of the Party's prosperous people policies, some wealthy peasant households making more than 10,000 yuan have appeared. Sampling carried out in representative counties shows the number of households making 10,000 yuan to be fewer than one per thousand, and virtually none of the 10,000 yuan households are engaged in farming. At the present time, peasant per capita earnings remain at a low level, and in some hardship areas, per capita income is less than 100 yuan per year.

Uneven rural development necessitates the adoption of policy guidance tailored to individual areas. Continue development should be allowed for rich areas and rich peasant households, and economic control, particularly control over tax collections, should be enhanced so that they shoulder required responsibilities to the country. Places in which per capita earnings are 300 yuan or less should continue to rest and recuperate and not too much should be taken from them. In places where per capita income is 150 yuan or below, effective policies to support the needy should be adopted. These three kinds of areas should also improve exchanges and cooperation.

The second problem is that the peasants now carry too heavy a burden. Many jurisdictions and departments want to get a little more out of the peasants, and in some provinces there are 14 or more assessments of various kinds on peasants amounting to between 40 and 80 yuan per capita. In some provinces, every peasant household in the province has even been assessed 2 yuan to build an athletic center in the provincial capital. Prices for the means of production are raised arbitrarily virtually everywhere, the price of chemical fertilizer and pesticides being raised by 20 percent or more causing the peasants to reduce investment. The unfair burden on the masses can only interfere with development of productivity.

Consequently, it is necessary strictly to guard against adding to the peasants' unfair burdens, and all assessments should be generally limited to less than 5 percent of per capita peasant income. All-around planning that takes all factors into account should be done with regard to rural public welfare facilities, and reforms and controls in the area of commodity circulation should benefit rural development of commodity production and the exchange of goods between cities and the countryside. In the procurement of agricultural productions, prices should be genuinely negotiated on the basis of quality with no deprecation of quality in order to drive down the price paid. Prices for the means of production should be expressly spelled out and known to all. There is to be no arbitrary raising of prices. Major efforts should be devoted to assisting peasants on the basis of voluntary participation for mutual benefit in the organization of joint marketing and other kinds of organizations in order to protect the interests of producers.

II. The Key in Readjustment of the Rural Industrial Structure Lies in Good Handling of Price Problems

In the current readjustment of the rural industrial structure, all jurisdictions have started out on the basis of their own peculiar conditions, and in some areas a momentum toward taking giant strides has appeared. However, some problems that merit attention have also appeared as follows: (1) Simplistically supposing that readjustment of the industrial structure consists of reducing the grainfield area and cutting back on grain production. (2) Ill-advisedly expanding the growing area for certain cash crops. Though there is a glut of tobacco, quite a few places have continued to expand the tobacco growing area. Market prices for citrus fruits are fairly high, so quite a few places have gone ahead to expand the citrus growing area without regard for the situation, causing a craze to grow citrus fruit. (3) Abandonment of cultivated land is increasing as people go into heavy industry sideline occupations and farming for light industry.

The basic reason for such one-sidedness in the course of readjustment is the influence of prices. China has yet to form a price system based strictly on scientific data. Parity prices among various agricultural products are not equitable, procurement prices for agricultural products differ from the value of the products and procurement policies swing back and forth. This dampens the enthusiasm of some peasants, particularly the enthusiasm for growing grain of some grain-growing peasants. Peasants say that the state may want a crop to be grown that we do not want to grow, and when we grow it, it is difficult to sell. But if we grow something that the state has not called upon us to grow, not only will there be a market for it, but we will be able to sell it at a good price.

Readjustment of the rural industrial structure must be in keeping with natural laws and economic laws, and quite a few places have distilled from practice some rather fine experiences and methods. Some prefectures in Fujian Province believe that the principle on which readjustment of the rural industrial structure should be premised is to increase grain output first so that the amount of grain per capita increases and the problem of sufficient food and clothing for everyone is substantially solved. Second, the guiding thought should be spelled out step by step. This means that second rate fields, and particularly "three prone fields" (fields prone to drought, prone to waterlogging and prone to diseases and insect pests), plus hillsides should be readjusted first; there should be greater readjustment of annual crops. perennial crops being kept steady. Step-by-step and phased action on the basis of this principle will result in better results.

In order to do a good job in readjusting the rural industrial structure, national departments concerned should actively promote formation of a scientific price system paying particular attention to linking prices of goods to each other laterally and quantitative analysis of effects of prices, the state thereby gaining strong support for carrying out plan guidance and macroeconomic regulation of rural villages. Simultaneous with improvements in supplying peasants with market information, commercial departments should employ the fixed procurement contract system to guide readjustment of the rural industrial structure to the path of planned development.

III. Grain Is a Problem Bearing on the Overall Situation from Beginning to End

Forecasts from many sources state that guaranteeing stable all-around growth of the whole national economy will require stabilizing grain output at 800 jin per capita during the Seventh Five-year Plan period and increasing it to 850 jin per capita by the end of the century as the minimum requirement for attaining a comfortably well-off standard of living.

A. In some places this year, there have been "four reductions and one drop" in grain production,namely reduction in investment, reduction in growing area, reduction in output, reduction in earnings, and a drop in enthusiasm for growing grain that has brought about a decline in production. This has meant, first, that grain-short provinces have asked to increase grain shipments into the province, and that some have changed from grain surplus provinces to grain deficit provinces. This as meant, secondly, that grain producing areas do not want to plant much grain. Income from the growing of grain crops is markedly lower than from the growing of cash crops. Net income per mu from the growing of cotton, oil-bearing crops, hemp and tobacco is generally one to five times greater than from the growing of grain. For fruit and melons, earnings are five to 10 times higher. Income from industrial sideline occupations is also several times higher than from growing grain. Right now a problem still exists of "low-priced grain hurts the peasants." if this problem continues without being solved promptly, a grain shortage will result.

B. Only by resolving the problem of "low-price grain hurts the peasants" will it be possible to insure steady growth of grain production. In order to go all out in readjustment of the industrial structure, multiple actions will have to be taken that combine increases in benefits for grain farmers, increasing enthusiasm for the growing of grain, and regulation of the macroeconomy and the microeconomy.

First is to continue to readjust a balanced system of grain supply and demand. A method for dividing up work and assigning a part to each individual or group and of dividing up work and assigning a part to every level has to be instituted with regard to the shipment of grain into and out of provinces, cities and autonomous regions, fundamentally stabilizing the relationship between supply and demand for grain through guidance plans and contracted fixed procurement. According to regional forecasts, several years hence both south China and northwest China will have to bring in 4 billion jin and 3 billion jin of grain respectively; north China and southwestern China will be self-sufficient in grain; and the middle and upper reaches of the Chang Jiang plus the northeast will each be able to ship out approximately 7 billion jin of grain. A balance between production and demand will be substantially realized among all areas. Using this as a basis, provinces and autonomous regions can use contracts to balance out surpluses and shortages among themselves. In addition, it will be necessary to continue to readjust the mix of grains that are grown and the pattern of grain production, gradually bringing about a change to the growing of upland rice on between 30 and 50 million mu of land now used for the growing of corn in the main north China corn growing area, and changing between 30 and 50 million mu of paddy fields in the southern rice growing area to the growing of superior quality livestock feed crops such as corn. The growing of fine quality rice, wheat and soybeans will also be expanded in order to meet market needs for higher quality and greater variety.

Second is continued improvement in the grain contract fixed procurement system and the price system. Here the key lies in good handling of the relationship between fixed procurement price and market price, different handling at different times in different places, and increase in ability of procurement units to employ the contract fixed procurement system. There has to be equitable setting of prices for different kinds of grain on the bases of the grain surplus and shortage situation in each area. Grain units should buttress their ability to bring down market grain prices, actively participate in market regulation, and link grain procurement to fertilizer sales.

Third is is continue improvement in macroeconomic regulatory measures for grain production. The former method whereby village and small town enterprises' profits were used to provide subsidies to agriculture on a per capita basis has to be changed with subsidies being provided on the basis of growing area and amount of commodity grain sold. Services provided before and after production should be improved; "grain producers associations" should be established; and joint supply and marketing should be adopted for effective control of prices of the means of production. The scale of farming should be enlarged and the concentration of land in the hands of grain farming households should be promoted. Surveys show that grain growing households farming 40 mu and more have earnings of 4,000 to 5,000 yuan or more. This is an important action for increasing grain farmer earnings and for heightening enthusiasm for the growing of grain.

IV. Dealing Scientifically with the Grain Conversion Issue

Once grain output has increased, gradual conversion of grain to meat, eggs and dairy products will become an inevitable trend. However, a look at the actual situation shows that only if a specific course for conversion is set and effective actions taken can grain conversion be built on a reliable foundation.

Priority development of livestock feed processing industries and poultry feed industries is one of the major ways in which to promote the conversion of grain. It has been figured out that for every 1 percent increase in protein of animal origin in the diet of the people of the whole country, an increase of approximately 10 billion jin of livestock feed grain is needed as well as a sufficient amount of protein feed and other additives. The situation everywhere shows that given an approximately 600 jin per capita amount of grain, the proportion available for use as feed grain is virtually infinitesimal. Only when the amount of grain reaches 700 or 800 jin and more can a portion of the surplus grain be converted to meat, eggs and dairy products, and the percentage used for livestock feed be able to rise. Jilin Province currantly requires approximately 10 billion jin of grain per year for conversion to meat, eggs and dairy products. Both the provincial CPC Committee and the provincial government have decided on vigorous development of animal husbandry, converting grain to meat, eggs and milk in the areas where grain is produced as a strategic emphasis in rural work. Initial results are already visible from this decision. As of the end of June 1985, the number of hogs being raised throughout the province had increased 22.4 percent from the same period in 1984; egg output had increased 93 percent, and milk production has increased 86 percent. Their experience was as follows: First, the formation of a livestock feed processing system combining cities and the countryside, the large and the small. In 1984, there were 4,733 livestock feed processing places in the province with a processing capacity totaling 1 million tons. Ninety-four percent of them were village and small town enterprises. In 1985 another 2,050 were built and total processing capacity reached approximately 2.6 million tons. Second was emphasis on support to local operation of small livestock feed processing plants, those run by villages, communes and households being paramount. They could process as needed, reduce the amount of transportation needed, provide their own funds and improve results. Third was rationalizing relations between feed processing industries and feeding industries. Feed processing enterprises had to stick to a policy of small profits but quick turnover simultaneously operating highly profitable livestock raising industries or other associated projects for interdependence and mutual advancement of the livestock feed industry and the livestock raising industry for coordinated development. Otherwise, both would find it difficult to prosper. Yucheng County in Shandong Province planned the use of some surplus grain for conversion into meat, eggs and dairy products. Originally the county planned to raising 2.4 million chicks to accelerate grain conversion. However, because of slack sales of chick eggs during the spring of 1985, and particularly because development of the associated livestock feed processing industry was unable to keep pace, as well as limitations caused by lack of chicken coops, scientific feeding methods, prevention and control of epidemic diseases, storage and transportation of products etc, chicken raising developed slowly remaining around the 1.2 million level of 1984.

Development of the food processing industry is another important way to hasten grain conversion, but quite a few problems exist in this course too. The management system for the country's existing agricultural products processing is currently in need of courageous reform, the formulation of fair parity prices for processed products, increase in the varieties of foods processed, satisfaction of domestic and foreign market demand, intensification of research and development on food processing, storage and transportation, and marketing techniques and equipment. Processing should be done in production areas and as completely as possible. Special attention should be devoted to multiple uses of products in order to increase the extent of value added by the food processing industry.

V. Development of Cash Crops Is Determined by Product Market Competitiveness and Market Capacity

Development of cash crops is determined by the quality of a product itself and its market competitiveness, and it is also limited by price, market capacity and purchasing power. The present "difficulty in selling" certain products is a reflection of a lack of information guidance and regulation of the macroeconomy.

A. The contradiction of a cotton supply that is greater than demand is becoming increasingly serious. Even though Shandong Province reduced its cotton growing area by 7.3 million mu this year, unless there is abnormal weather later on, fulfillment of a 22 million dan fixed procurement of cotton is anticipated. By the end of the year, there will be an oversupply of 60 million dan of cotton in the province. Hebei, Shandong and Henan provinces are currently in the midst of a major readjustment of their cotton production. They are in process of making major cutbacks in the growing area, making major changes in varieties grown, and greatly changing quality. The state has to take resolute action to regulate the macroeconomy. Examples include planned reduction in cotton production, changing to the growing of other cash crops; relative stable concentration of the cottonfield area in cotton growing areas, prompt issuance of fixed procurement contract quotas for cotton, and suitable reduction in the price of cotton. Following a lowering of price, the resulting funds surplus should, in principle, remain locally; industrial structure funds should be set up; support should be given to units shifting production, and, insofar as possible, there should be no cuts in poultry farmer earnings. In order to reduce the oversupply of cotton, credit sales should be encouraged; it can be released for relief or used to pay for labor, or it can be used to promote the building of roads or other undertakings. Authority to sell cotton in foreign trade may also be delegated gradually for further opening of an international market.

B. As a result of the reform of the vegetable production and marketing system, vegetable markets in large and medium size cities have become more lively and flourishing. Zhengzhou, Shijiazhuang and Haerbin have had three major experiences with vegetable markets as follows: First , once vegetable prices had been gradually loosened, the varieties of vegetables available were readjusted on the basis of market demand, delicacies being added and quality improved. Second was the opening of more business channels, which enlivened markets and provided convenience to city people. Third, the state controlled the sources of supply of major vegetables, effecting "large control for small movement," thereby avoiding alternately skyrocketing and plummeting vegetable prices. Obviously sensible crop pattern and tailored guidance were likewise necessary in vegetable production.

In south China, where natural conditions are relatively superior, a country fair trade in vegetables has thrived for a long time and the pace of reforms can be faster. However, in exceptionally large cities such as Shanghai and Nanjing where rural and small town industry has developed rapidly and the output value of farming is low, the pace of reform requires exercise of prudence.

Once vegetable markets have been opened up, it becomes necessary to set up a rational pattern of radiating production and marketing network bases in close-in and distant suburbs, to guarantee the existence of a certain vegetable field area, and to set up very quickly secondary vegetable production bases in far out suburban areas. Energetic efforts also have to be devoted to nurture development of vegetable growing in nearby counties, to helping train technical personnel, to keeping open marketing channels, to setting fair prices for vegetables, and to using regulation of the macroeconomy to promote development of vegetable production.

C. Commodity production bases for sugarbeets, oil-bearing crops, tobacco, various kinds of hemp and fruits have to engage in scientific research, training of personnel, the spread of techniques as well as the building of associated production, transportation and marketing facilities. They must particularly keep areas of science and technology if commodity production is to be filled with vitality. A survey shows emphasis on science and technology in the building of fine citrus fruit production bases in various provinces of south China in recent years. They persevered in the breeding of fine nursery stock, sensible laying out of citrus groves, standardization of growing techniques, and serialization of production, transportation and marketing for great improvement in the quality of fruit and increase in its market competitiveness.

VI. Shift of the Agricultural Labor Force Is a Fundamental Problem in Rural Development

In order for 800 million peasants to become rich as quickly as possible, the shift of the workforce will have to be accelerated, the avenues for production diversified, and the labor productivity rate increased. A survey of the situation shows that in places in which the commodity economy is fairly well developed and the structure of industry has been readjusted fairly rapidly, the shift of the workforce into the non-agricultural sector has also been fast. As a result, the peasants are relatively wealthy. In places at an intermediate level, workforces have shifted mostly within agriculture. In areas that have developed slowly, the workforce is substantially in a situation of having no means of finding employment. In the country as a whole, 100 million members of the agricultural workforce have no recourse, and this is a major obstacle to peasants becoming wealthy as quickly as possible. Some major macroeconomic policy decisions have to be made now as follows:

First, the state has to formulate a clear-cut national industrial policy that encourages the shift in a planned way of funds,skills and the workforce in society into industrial sectors that offer long-term benefits. Governments at all levels must work out regional industrial policies and give assistance for a smooth shift of surplus workforces into the development of various resources and into the non-agricultural sector.

Second is support to, discovery of and training of a group of economic organizers to form a new economic organization that can open up new industrial sectors and spur the shift of large numbers of the agricultural workforce. Development of a diversified rural education and training campaign is a basic way in which to produce skilled people. Rural grassroots Party organizations should require Party members to take the lead in making the most of the role of economic organizers to open production avenues for the peasants.

Third is approval for peasants to leave the land and leave the countryside to develop medium size and small cities and towns, and simultaneous with the founding of rural and small town enterprises to participate in secondary and tertiary industrial activities, the emphasis over the long range being on a shift to tertiary industries.

Fourth is to legitimize as rapidly as possible the operation of village and small town enterprises to put them in the same competitive position as enterprises in cities and place them on the track of national economic development. Only when peasants anxieties are allayed about engaging in rural and small town enterprises can farming be concentrated in skilled hands, the scale of agriculture be expanded and the peasants engaged in grain and other agricultural production become wealthy.

9432
CSO: 4007/151

RURAL HOUSEHOLD RECEIPTS, EXPENDITURES RISE UNEVENLY

Beijing NONGMIN RIBAO in Chinese 26 Nov 85 p 1

[Article: "Rural Villages Rely Mainly on Their Own Accumulations for Production Funds According to a Survey of 262 Villages Conducted by Departments Concerned; Fairly Rapid Rise in Funds for Living Expenses; Fairly Slow Increase in Production Fund"]

[Text] A survey of 262 villages conducted by departments concerned shows 141.29 million yuan as having been invested in production during 1984, or 544,000 yuan per village. These funds derived from accumulations by the villages themselves, for the most part.

A look at the sources for these funds shows each village as having itself provided 411,000 yuan or 75.5 percent of total funds invested. This included 5,500 yuan in uncompensated support provided by the state, which was 1.3 percent of self-provided funds and 1 percent of total funds invested. Borrowed funds amounted to 133,000 yuan or 24.5 percent of the total. This included 97,000 yuan from credit cooperative and bank loans and from down payments against intended purchases, which was 72.9 percent of borrowed funds and 17.8 percent of total investment. Among borrowed funds, high income households received more loan funds that low income households. Households with a per capita net income of less than 200 yuan obtained loans of less than 100 yuan, while most households with a net per capita income of 1,000 yuan and more obtained loans of 2,400 yuan. This situation shows that since institution of contract responsibility systems linked to output, mostly self-accumulations have been relied upon for production funds, but that many people with a head for business have paid increasing attention to the important economic instrument that loans can be.

A look at investors shows an average per village investment by collectives of 296,000 yuan, or 54.5 percent of the total amount invested; an average per village investment by new economic associations of 30,000 yuan, or 5.4 percent; and an average per village investment by peasant households of 218,00 yuan, or 40.1 percent (an average per peasant household investment of 676 yuan). This shows that despite rapid increase in peasant household investment, investment by collectives still accounts for more than half the total.

A look at the uses of investment shows each village uses an average 108,000 yuan of fixed capital for the purchase of fixed assets, which is 19.9 percent of total funds invested. Circulating funds used in the production process amount to 436,000 yuan or 30.1 percent of total funds invested. Clearly most new village investment of funds in any given year is for circulating funds.

On average, every village surveyed had a total of 1.01 million yuan in production funds including the previous year's investment in circulating funds and investments over the years in fixed assets that were still yielding benefits. Though this average figure is impressive; nevertheless, 74 percent of it is tied up in property. Funds in the form of currency for circulation amounted to only 26 percent. This is to say that each village was able to use no more than 263,000 yuan in currency for circulation. Clearly funds were insufficient.

An estimate of family receipts and expenditures for 1984 based on the survey of 36,667 households showed average gross income per peasant household to be 3,089 yuan minus operating expenses for the current year amounting to 893 yuan, tax payments of 53 yuan, withholdings by the collective of 77 yuan, 152 yuan used for the purchase of fixed assets, living expenses of 1,590 yuan, and other expenditures other than payments on loans of 119 yuan, leaving a surplus of 203 yuan for the entire year. On the basis of these calculations and figuring an average 4.8 persons per household, a surplus remained of 42.10 yuan per capita for use in the expansion of reproduction or for further improvements in livelihood. The foregoing situation shows rural living expense funds to have increased fairly rapidly while production funds have increased fairly slowly.

9432
CSO: 4007/146

AGRICULTURAL LOANS INCREASE 30 PERCENT IN 1985

Beijing NONGMIN RIBAO in Chinese 25 Jan 86 p 1

[Article by Zhao Zekun [6392 3419 3824]: "Agricultural Loans Increased Almost 30 Percent Last Year"]

[Text] It was reported at the recently held Farmer's Bank Branch Managers' Conference that at the end of 1985, total deposits of all kinds in farmer's banks amounted to 93.4 billion yuan, an increase of 19.4 billion yuan over the end of the preceding year; total loans outstanding amounted to 168.5 billion yuan, an increase of 22.5 billion yuan over 1984. Last year, farmer's banks in all areas increased their proportion of forestry, husbandry, fishery, and byproduct loans, primarily to maintain spring cultivation levels and the structural readjustment of agriculture. Total loans by farmer's banks and credit cooperatives amounted to almost 100 billion yuan; the proportion of forestry, husbandry, fishery, and byproduct loans rose from 23.6 percent in 1984 and to 29.2 percent in 1985. The second purpose was to fulfill monetary requirements for the nation's planned purchases and sales of agricultural and supplementary goods. Altogether they facilitated 112.9 billion yuan in grain sales, sales of 82.13 million bales of cotton, and sales of over 4 billion jin of oil.

Loan repayments were used to aid impoverished areas, help poor households become better off, and rebuild disaster areas. In Nei Monggol alone, over 2 million yuan in relief loans were issued.

In order to speed up the development of rural enterprises, development loans were also increased considerably. Total development loans by farmer's banks amounted to some 600 million yuan, which was 54.9 percent higher than last year.

9990/9435
CSO: 4007/296

OUTLOOK FOR PORK, EGG SUPPLIES UNTIL FIRST QUARTER 1986

Beijing NONGMIN RIBAO in Chinese 23 Nov 85 p 2

[Article: "Pork Supplies To Remain Steady and Eggs To Be in Short Supply Throughout the Country During Fall of 1985 and Spring of 1986"]

[Text] The Food Bureau of the Ministry of Commerce recently convened a conference for the exchange of experiences on reforms in food dealings throughout the country. The conference made a preliminary forecast about the pork and fresh egg markets that said that pork supplies would remain steady and eggs would be in short supply during the fall of 1985 and the spring of 1986.

Live hogs. Following the loosening of restrictions on hog prices, a fine momentum developed throughout the country in both production and circulation. With the loosening of prices on hogs, peasant benefits from the raising of hogs increased, and this aroused their enthusiasm for production bringing about a steady rise in output of live hogs. During the first half of 1985, 110 million head of fattened hogs were removed from inventory, up 6.7 percent from the same period during the previous year. Forecasts call for a slight increase over the first half of the year in the number removed from inventory during the second half of the year. After many channels for circulation began to be used, the market came alive, and the percentage of business done by state-owned food businesses declined. It is anticipated that state procurement nationally will be 31 percent less in 1985 than during the previous year, and this is normal. More hogs were shipped from one province to another during the first three quarters of 1985 than during the same period in 1984. The conference predicted procurement and marketing of live hogs throughout the country during the fall of 1985 and the spring of 1986 would remain basically in balance, that there would be a dovetailing between transfers from one province to another, and that during the first quarter of 1986, the number of hogs shipped out of hog producing areas would be larger than the number shipped in. At the present time there seems to be differences in numbers between one region and another and a certain conflict exists. After entering the fourth quarter, and particularly during the period just before the lunar New Year, not only does the busy season in hog procurement occur, but this is also the season for pork sales. In addition, as a result of wage adjustments for staff members and workers, and a rise in urban and rural purchasing power, new changes may occur in the pork market during the fall of 1985 and the spring of 1986. After fall began, hog prices rose in one place after another, the procurement price being highest in Guangdong Province. This has a substantial effect on Hunan and Jiangxi provinces. Procurement and market prices in Sichuan Province remained the lowest in the whole country. Transfer prices for frozen pork in producing areas have risen. Currently major producing areas are becoming anxious about replacing pork in storage, so prices for pork on hand are moderate (2,450 to 2,550 yuan per ton), while the price for future supplies runs 200 to 300 yuan more per ton than for pork on hand.

Fresh eggs. The number of poultry raised by rural families continues to increase. As of the end of September, the number being raised was nearly 20 percent greater than for the same period in 1984. Since the first half of the year was the brisk season for egg production in producing areas, acceptance prices for eggs were overly low and this depressed consumer prices severely. Producing areas die not dare relax procurement. From January through August 1985, the state purchased 380 million jin fewer fresh eggs throughout the country than during 1984. The present is the slack season for egg procurement and sales are still increasing. Since every locale failed to ready sufficient eggs during the brisk season, the storage situation is fragile in major marketing areas, and that sales are larger than purchases is becoming increasingly apparent. Since the beginning of fall, prices for fresh eggs have risen everywhere. The prevailing price level will continue for a time, and supply and marketing units everywhere should not this situation and do a good job of procurement and marketing.

9432
CSO: 4007/146

NEED TO MAINTAIN GRAIN PRODUCTION UNDERSCORED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 9, Sep 85 pp 7-12

[Article by Ding Shengjun [0002 5116 0193], Institute of Commercial Economics, Ministry of Commerce: "Need To Insure Steady Growth in Gross Output of Grain for the Whole Country--Greater Understanding of Contemporary China's Grain Problem"]

[Text] In recent years the academic world of agriculture in the country has had several major discussions of grain problems. First was the controversy about "taking livestock as the key link" as a path for the development of agriculture. This was followed by the crossing of swords over the concept of "large scale agriculture" and "large scale grain production." Subsequently there was discussion about "where there is a glut" of grain in China. In actual work, one year much is said and the following year little is said with no agreement as to which is right. All this cannot help but have an effect on the country's policy decisions about grain and it hurts consistency in grain production. As a result of consecutive bumper harvests of grain and the emergence of a surplus of grain throughout the country, some people mistakenly suppose that China now has a grain "glut" as though the country's grain problem requires no further serious attention. Such neglectfulness in thinking is bound to lead to laxity in action. Statistical data from the State Statistical Bureau shows a more than 49 million mu decline in the area planted to grain throughout the country in 1985, which will mean a decrease in grain output.

This raises an important question, namely how to put national grain policies on a fairly long-range footing to achieve consistent growth and to avoid ups and downs in supply, shortages and gluts, and to get rid of inconsistencies. With this view in mind, the writer has proceeded from a summarization of his own experiences during the past few years in studying the grain economy to venture some further discussion of inchoate ideas about problems in the contemporary Chinese grain economy study field and to offer some ways and means of developing China's agriculture and grain production.

I. A Review of the History of the Founding of the Chinese Nation; Food As a "Treasure in Governing the Kingdom" Throughout the Ages

The Chinese nation founded on agriculture for several thousand years has had learned scholars through the ages put forward numerous brilliant ideas on grain policies. Guan Zhong said, "The masses of people, a strong army, a vast land and a rich nation must derive from millet." Millet means grain here. This virtuous minister who managed affairs of state, regarded grain as a "necessity in governing the nation." Mo Di said, "The five cereals are a reliance for the people, ...they are a treasure for the country." Here the five cereals is used to mean grain. This famous philosopher regarded grain as a "treasure in governing the nation." Li Kui noted that "harm to agriculture sows the seeds of famine, ...when agriculture is damaged, the country becomes impoverished, and when grain is cheap, the peasants suffer." This economist regarded grain as "capital in governing the nation." Shang Yang explained that "a nation's prosperity derives from agriculture and warfare. When there is both gold and grain, warehouses and treasuries, the country is rich and the army strong." This reformer regarded grain and agriculture as "keys in governing the nation." In a memorial to the throne, Han Jiayi said, "To store is a great mandate for all under heaven. Why should there not be much grain and surplus wealth? If one is ready to attack, he is secure, and if he is ready for war he will be victorious and able to treat his enemies charitably and accommodate his neighbors." This talented scholar regarded grain as "the way in governing the nation." Geng Shouchang offered the advice, "Direct border prefects to build granaries. When grain is cheap, raise the price and store it to help the peasants; when grain is expensive, lower its price and sell it off. This is known as the ever normal granary, and the people benefit from it." He termed this "a system in governing the nation." Right up to the present time, even more knowledgeable scholars have put forward numerous brilliant ideas regarding grain such as those of Gong Zizhen's doctrine of "first make sure of grain and then other goods," Chen Chi's doctrine of "emphasis on the administration of agriculture," or Yan Fu's "equal stress on agriculture and commerce," etc, all of which are regarded as somewhat influential "doctrines for governing the nation."

Today one view maintains that the foregoing concepts are Confucian economic thinking of "emphasizing fundamentals while repressing incidentals, which they repudiate indiscriminately in toto. When people go so far as to use the contemporary expressions that they themselves have created of "small scale agriculture" and "small scale grain" in order to repudiate the important concept that grain is the foundation for the foundation, I feel that such a view cannot be correct or complete. We do not intended to evaluate comprehensively here all views on grain farming. All we want to explain is that the restraints exercised by historical conditions and the level of development of productivity were limitations that even sages and wise men could not avoid. Consequently, the limitations of the various ideas presented above were part of the ordinary course of history. Furthermore, it should be said that it would be very difficult to value the diversified grain farming concepts that China's economists and reformers of several thousand or several hundred years ago were able to propose, but people should not be overly critical of the ancients. It should be noted that despite differences in the mode of expression in the foregoing series of ideas, one important idea runs through them, namely that grain and agriculture are fundamental to governing the country well and providing the people peace and security. This economic thought, one might say, has continued through several thousand years of Chinese history and has been too influential.

Today, when studying the grain problem in contemporary China, and tracing back to remote antiquity the agricultural and grain economy of the Chinese nation, while experiencing a sense of pride we should doubtlessly also adopt the best, carry out, and develop economic thought that gives serious attention to agriculture and grain, and regard grain factually as "a treasure in governing the nation" in contemporary China.

II. One of The Principal Tasks of Chinese Agriculture Remains Firm Attention to Grain Production Rather Than Guarding Against "Surpluses"

In the midst of all the commotion attending consecutive bumper harvests, some people have become overly optimistic, supposing that the country already has a grain "glut," and that it is no longer necessary to devote firm attention to grain production but rather it is necessary to "take land out of cultivation" and "to limit and reduce output." By these lights, the urgent matter of the moment in China's agriculture seems to be handling of the so-called grain "glut."

Such a fundamental assessment of the grain situation in modern China and advocacy of measures for dealing with it is not consistent with the facts. Does modern China really have a grain "glut?" The answer is negative. Since 1983, the country has had a grain surplus, but the surplus has not reached the point of being a "glut."

It is facts that are most convincing. China's current level of grain production is still relatively low and uneven. Per capita grain output is still several hundred jin less than that of moderately economically developed countries. The level of grain consumption for the country as a whole is still in an initial stage in which most places have solved the problem of sufficient grain to eat, but have only just begun to make the transition from the stage of "having sufficient food and clothing" to the stage of "being fairly well-off" and from the stage of "limitation" to "expansion." It is even more important not to forget that there are still places throughout the country with tens of million people who have yet to solve the problem of sufficient food and clothing. Rough calculations show that the approximately 10 percent of China's rural population that lives in places not accessible to transportation and in antiquated, sparsely populated, border area, mountainous, and impoverished places where natural conditions are poor is still urgently in need of solution of hardships in obtaining sufficient food and clothing. Grain reserves in the farflung rural villages are not abundant. In recent years, the peasants in many places have not wanted to hold grain in reserve preferring to sell it at the increased price paid for grain in excess of procurement quotas. Consequently, when spring has arrived, numerous peasants have had to purchase grain in markets to keep themselves alive until they were able to get new grain in summer. These facts show that when appreciating that an historical turning point has been reached in China's grain situation, one should not lose one's clearheadedness and sink into blind optimism or become lighthearted.

Grain production draws support from the soil and is a conversion process whereby solar energy is transformed into organic energy. Therefore, it cannot help but be limited by the amount of soil, weather conditions, and the level of skill. China's 9.6 million square kilometer (approximately 14.4 billion mu) land area is 33 percent mountains, 26 percent high plateaus, 19 percent basins, 12 percent plains, and 10 percent hills. The cultivated area suitable for farming is generally considered to be only 1.5 billion mu. This limited cultivated land area has to both take care of the food needs of a population of 1 billion and take care of the clothing needs of a population of 1 billion. There is not a large amount of room for maneuver. Furthermore, nature is not generous and kind. Disasters such as drought, floods, wind storms, frosts, hail storms, and freezes frequently occur, and it is a rare year that the weather is favorable for the growing of crops. Take 1983, for example when the area of the country affected by natural calamities amounted to 520.65 million mu and the disaster stricken area reached 243.15 million mu, the disaster stricken area being 46.7 percent of the area affected by natural calamities. This included a 182.4 million mu area affected by floods, 86.25 million mu or 47.3 percent of which was a disaster area. The drought affected area of the country was 241.35 million mu of which 113.85 million mu or 47.2 percent was a disaster area. Disaster area is ordinarily used to mean a cultivated land area on which farm crop yields have been reduced by 30 percent or more as a result of disasters. Since 1980, more than 46 percent of the disaster affected area of the country has been disaster areas. This shows a regular year after year and extraordinarily frequent occurrence of natural disasters in China. It also shows the level of China's agricultural science and technology to be not very high and its ability to withstand natural disasters not very strong. To a considerable extent, China must depend on the whims of the weather for food, and output of grain and other farm crops is influenced by and fluctuates according to nature. In short, China's agricultural foundation is still fragile, and strengthening of the agricultural foundation will require unflagging efforts for a long period of time.

In view of these circumstances, until such time as fundamental breakthroughs are made in agricultural science and technology, China with a population of 1 billion cannot talk about a "grain glut." Proposing "limits on output and cutbacks in output" as a policy to prevent "gluts" is off the mark.

III. Grain Is a Basic Industry For the Readjustment of the Structure of Rural Industry; Only When the Basis Is Firm Can All Enterprises Prosper

Historical experience tells people that if one concerns oneself with grain in isolation from all else, it will be impossible to succeed. To escape from the grain sub-system and to proceed from the larger system of the make-up of all rural industry is the only way to find a new road toward "a finer land."

At the present stage, readjustment of the make-up of rural industry is an historical imperative for large scale development of China's rural economy; it is an objective requirement for the building of new rural villages that are uniquely Chinese in character; and it is an important action for strengthening the dynamism and vitality of further development of grain production. Use right now of the fine opportunity that surplus grain provides for the development of a group of new industries containing many components, having many forms, at numerous levels, and of various kinds is of far-reaching and major significance. Use of raw materials that are available without end and can be used without exhaustion for development of food livestock fodder, fruit and vegetable processing industries would not only shift large amounts of surplus rural labor into new industries, but increased value resulting from multiple processing would increase peasant earnings. Planned dispersal of agricultural product processing industries to rural producing areas so that fresh and live agricultural products would be maintained fresh and prevented from rotting could greatly reduce losses. Making use of the large numbers of skilled craftsmen in rural villages to develop construction materials and construction industries, transportation industries and mining industries, as well as businesses and service trades would inevitably promote large scale development of the production of rural commodities and advance the prosperity and wealth of the rural economy.

In addition, readjustment of the structure of rural industry is a relatively drawn out process of economic development, and one must adhere to the principles of cautious initial battle and determination to win in readjustment. In readjusting the structure of the rural economy, the emphasis must be on the situation as a whole, the focus on the macroeconomy, action begun in the microeconomy, and the finest planning must be done, the fines selections made, and the finest control exercised in order to achieve optimum results. Proceeding from this important principle, in the process of readjusting the structure of rural agriculture there positively can be no let up in the farming industry, particularly in the traditional industry of grain production. Farming is primary and is the foundation in the three tiers of rural industry, and grain is the foundation of the foundation; it is a necessary prerequisite in readjustment of the structure of rural industry. The livestock industry is secondary, and it depends on the farming industry, particularly on grain production. Without grain as a raw material, the food industry, the livestock feed industry and the dairy industry are so much pie in the sky; therefore, there can be no let up on grain production.

It should be pointed out, moreover, that the current tendency to ignore and let up on grain production is manifested in the following ways:

1. Overoptimism. As has been said earlier, some people suppose that there is already a great "glut" of grain in China as though the emphasis in the country's work should be shifted from close attention to production to dealing with the so-called grain "glut." On this basis, quite a few places are no longer taking firm grip on grain production but are proceeding instead from blind optimism about the "grain glut." In drawing up agricultural development plans, they propose "stabilization of grain production" at best. Though they talk about "stabilization," actually there is no stability.

2. Emphasizing money and slighting grain. Inability to handle dialectically the relationship between "grain" and "money," not sacrificing grain for the sake of money. This shows up in digging up land that is not low-lying and that could be used for grain fields to make fish ponds, turning flat land that is

not hilly into woodlands, using large amounts of fertile soil from fields for firing bricks, not improving cultivated land that is a series of bumps and hollows but rather abandoning it to become wasteland. When it comes to changing to the farming of high income cash crops, the desire not to grow grain is even more universal.

3. The tendency to leave farming. Some places have been unable to correctly perceive the dialectical relationship between "no stability without agriculture" and "no wealth without work." Some rural cadres have left agriculture to become "industrial secretaries." In some places, the tendency to leave agriculture has become marked, large numbers of young, able-bodied male members of the workforce going off to engage in industrial sideline occupations and businesses leaving behind only the old and women to carry out grain production. Abandonment of the land and hiring of labor to farm grain is fairly common. In some rural villages, grassroots level cadres "run off to Guangdong Province to make purchases for their units leaving the farming of grain to helpers."

4. Decline in interest. Peasant cash income from the farming of grain is lower than from the farming of cash crops and much lower than from industrial sideline occupations. This is a problem that exists everywhere. At the same time, the cost of the material investment that peasants have to make to grow grain rises steadily, and grain-growing peasants bear a particularly heavy burden as a result of various assessments. Consequently interest in growing grain is increasingly on the wane; less care is taken, investment is less, and the peasants do not want to put efforts into raising yields per unit of area. As some peasants say, "Just grow a little grain to eat nowadays, and that's all!"

5. Grainfield decrease. Between 1957 and 1983, there was a 200 million mu net reduction in the amount of cultivated land throughout the country, the decline averaging 8 million mu per year making China one of the countries in the world with the greatest decline in cultivated land area. In 1957, cultivated land averaged 2.59 mu per capita; by 1983, it had declined to 1.45 mu. It is particularly noteworthy that the reduction was fastest on China's eastern plains, coastal areas and in suburbs, places in which "land is more precious than gold." Readjustment of the structure of rural industry is imperative, but one cannot make "readjustment of the structure" a synonym for "cutbacks of grainfields." Large scale cutbacks of grainfields must inevitably hurt growth in the gross output of grain and ultimately are not a long-term solution.

Countless facts demonstrate that the present tendency to ignore and let up on grain production should cause concern. Thanks to the tremendous continual increases in grain output during the past several years and the filled granaries, there is no need for too much apprehension about the food problem today. The thing that makes people apprehensive is that if the tendency to ignore and let up on grain production continues, grain output will inevitably shrink more and more. But if there is not enough grain, why not import grain to make up the difference? Considering China's circumstances, limited imports of grain, which is a staple agricultural product, are permissible; however, large scale grain imports are no long-term policy.

The exposition of problems above has been in terms of China's overall situation. Special circumstances in individual areas may be discussed separately. A look at the objective laws of economic development shows that only from a basis of steady buttressing of agriculture and of grain production is it possible to readjust the structure of rural agriculture and provide more room for maneuver. When the foundation is strong, all enterprises prosper; when the foundation is weak, all enterprises decline. We must keep a clear head.

IV. Define Strategic Objectives and Guarantee Steady Increases Year After Year in the Country's Gross Output of Grain

In all matters, foresight is required for success; without foresight, they will fail. Policy decisions about grain production that relate to the national economy and the people's livelihood require even greater foresight. Just how much grain the country will need in the year 2000 requires good forecasting and the definition of strategic goals so that plans will be well thought out; no wavering will occur, and steady growth in grain output will be assured.

Just what increase in the total output of grain will be needed to realize the goal of a comparatively well-off standard of living for the people of the whole country? According to forecasts from the State Family Planning Commission of the State Council, the country's population will reach 1.2 billion and the amount of grain needed will greatly increase. In a grain economy, amount of grain needed includes the following: grain for human consumption; grain for livestock feed, grain used by industrial and commercial enterprises, seed grain, spoilage of stored grain, needed increase in grain reserves and grain needed for export. All of these are indispensable. The Chinese diet at the end of this century as envisioned by the Institute of Health of the Chinese Academy of Medical Sciences will be based on cereal grains with some consumption of pulses and tubers plus equitable increase in foods of animal origin. This diet plan calls for an annual consumption per capita of 452 jin of unprocessed grain, 60 jin of meat, 60 jin of dairy products, 24 jin of egg products, 18 jin of fish, 12 jin of edible vegetable oil, 12 jin of sugar, 40 jin of fruit and 240 jin of vegetables. In accordance with the foregoing indices, the amount of grain needed for all purposes by the end of the century is forecast as follows:

(1) For human consumption - 542.4 billion jin; (2) for livestock feed - 350 billion jin; (3) for industrial and commercial enterprises - 100 billion jin; 4) for seed - 40 billion jin; (5) as feed for rural draft animals - 46 billion jin; (6) spoilage of grain stored by the state - 10 billion jin; (7) increase in grain reserves - 10 billion jin; (8) export grain - 10 billion jin; and spoilage of rural grain in storage - 12 billion jin.

The total of all of the foregoing categories shows the total amount of grain that will be needed for the country by the end of this century to be about 1.1204 trillion jin. This is to say that to meet the requirement for approximately 1.120 trillion jin of grain for the whole country by the end of this century, grain output will have to average somewhat more than 930 jin per capita. A look at the foregoing forecast shows that by the year 2000 the country's grain requirements will have grown tremendously, increasing by 306.2

million jin from the 814.2 million jin gross output of grain of 1984. Sixteen years remain until 2000, so an average increase of more than 19.1 million jin per year will be needed. Figured on the basis of a 1.7 billion mu grain growing area, yields will have to increase by more than 11 jin per mu per year. It will be rather difficult to attain the foregoing increase in output. Nevertheless, with effort, it can be realized and it is a strategic objective to be pursued.

Production is the starting point and the foundation of the social reproduction process. Consequently, correct policies must be adopted for grain production. Currently there are two opposing proposals on grain production in China. One is continued firm grip on grain production with no relaxation to assure consistent increases year after year. The other is to "limit output and reduce output" of grain. I believe the former to be the best plan and the latter the worst. People positively must not act rashly when they have enough to eat and adopt a grain policy of "cutting when there is much and trying to catch up when there is too little, thereby gaining a fine grain situation that was not won easily only to lose it again.

In order to insure steady growth year by year in grain production throughout the country, support must be given through programs and policies, technical measures, and material investment. First of all, there must be a comprehensive and correct carrying out of a program of "positively no relaxation of grain production and active development of economic diversification." Only by unifying these two phrases dialectically and carrying them out completely will it be possible to insure sustained and consistent development of agriculture and of the rural economy. Views of actions that regard the first phrase as "false" and the second phrase as "true" are inconsistent with Central Committee programs. Second, the main assault must be on grain yields per unit of area and maintenance of a sufficient grainfield area. Maintenance of high yield fields, improvement of medium yield fields, and transformation of low yield fields are major ways in which to increase the country's gross output of grain and raise the labor productivity rate in agriculture. Concurrent with a main attack on yields per unit of area must be a guaranteed sufficient amount of grain growing area, the grain growing area for the country as a whole being maintained each year at around 1.7 million mu. Next is development of specialized production and an intensification of the building of commodity grain bases. Grain production, like agricultural production in general, must have as it direction and emphasis an increase in the level of specialization and socialization. In order to do this, it is necessary to build a number of commodity grain bases. The state has to build a number of large commodity grain bases in a planned, step-by-step, focused way, and local areas have to proceed from the natural conditions in their own areas to build a number of medium and small commodity grain bases. In the process of building commodity grain bases, a gradual readjustment of crop patterns to make them equitable in the country's principal grain growing areas will be necessary thereby evening out the distribution of grain producing areas throughout the country and thus avoiding the need to transport grain over long distances. In raising the socialization and specialization of grain production, attention must be directed to fostering and developing households specializing in grain production, thereby causing grain production to become concentrated gradually in places suited for the growing of grain, on cultivated land suitable for the growing of grain, and in the hands of those skilled in farming to make full use of natural advantages, technical advantages and advantages resulting from scale of farming.

A point to be mentioned in passing is that some people suppose that the the building of commodity grain bases should not be proposed again. Their reasoning is that such proposals highlight only grain production while overlooking other kinds of production. Such a view is not necessarily either fitting nor complete. Actually, China's commodity grain bases are agricultural bases on which the production of grain predominates or the production of grain and pulses predominates. They are not "undiversified." More importantly, their aim is to improve the level of specialization in grain and agricultural production. In these terms, the building of commodity grain bases, like the building of cotton bases, sugar crop bases, dairy cow bases, milk goat bases and vegetable bases is correct. Elimination of the building of commodity grain bases that have operated effectively for many years is most certainly not a good plan.

Of course, the "tightening" and no "relaxation" in grain production does not mean a return to the former way of taking hold of grain production, but rather raising grain production to a new level through application of the laws of value and market demand. It is necessary to make gradually and equitable readjustments in the structure of farming, to make equitable readjustments in the kinds of grain grown and to improve grain quality so that production and demand will be coordinated, so that sales will meet needs and so that grain production and economic diversification will be mutually reinforcing and advance together in step.

Reform of China's agriculture has already scored world recognized achievements and has written an extremely glorious chapter in the history of China's agriculture. However, the greater the achievements and the better the situation, the more vigilance. A cold look at the situation shows reform of China's agriculture remains incomplete, and there is the problem of consolidation. In the midst of progress there are numerous new situations in the rural socio-economic field in the country requiring study, and numerous problems to be solved. The grain problem discussed in this article is one of the problems that will not permit a lighthearted attitude to be taken. Today, promptly overcoming of the tendency to neglect and relax grain production and to prevent a contraction of grain production is crucial in the consolidation and development of the fine situation in China's agriculture. In an overall sense, creation of relatively stable conditions to insure consistent growth year by year in the gross output of grain should become a fixed agricultural policy and grain policy for contemporary China.

9432
CSO: 4007/116

SPOKESMAN SAYS DROP IN GRAIN AREA REDUCED

HK180139 Beijing ZHONGGUO XINWEN SHE in Chinese 0740 GMT 17 Apr 86

[Report: "China Begins Reversing a Drop in the Area Sown With Grain"]

[Text] Beijing, 17 April (ZHONGGUO XINWEN SHE)--Zhang Zhongji, a spokesman of the State Statistical Bureau, said here today that China this year reversed the situation marked with several consecutive years of decrease in the area sown with grain. The area planted [words indistinct] food crops this year reached 28.8 million hectares, an increase of 157,000 hectares over last year, and summer food crops in most of the areas are doing well.

Zhang Zhongji said that according to a forecast based on a sampling of 84,000 peasant households asked about their farm crop-growing plans, China's area planted in food crops this year will increase 1.7 percent compared with last year. Of economic crops, the area sown with peanut, sesame, rape, beets, and so forth will increase more than 10 percent over last year. due to production exceeding demand in the past few years, areas sown with crops like jute, bluish dogbane, and cotton will be reduced to different degrees this year compared with last year. In certain areas, the reduction in the acreage sown with cotton has been a bit excessive.

Zhang Zhonji said there had been an increase in China's peasant investment in land this year [as received]. The volume of retail sales of agricultural means of production in the 1st quarter reached 11.20 billion yuan, an increase of 5.5 percent over the corresponding period last year.

/12913
CSO: 4007/371

VARIOUS WAYS TO REDUCE COTTON GLUT EXPLORED

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 10, 23 Oct 85 pp 49-53

[Article by Hong Wujin [3163 3527 6855], Huang Shouhong [7806 1343 1347], Huang Dezhi [7806 1795 2535] and Liu Bingshen [0491 0014 3947], Academy of Agricultural Economics, Beijing Agricultural University: "Contradictions Between Cotton Supply and Demand in China and Measures To Deal with Them"]

[Text] 1. Sharp Contradictions Between Supply and Demand

Rapid development of cotton production in China since 1979 has turned around the long enduring situation of a cotton shortage. Since 1983, China has changed from a cotton importing country into a cotton exporting country. The tremendous growth of cotton production during the past several years has, however, brought new problems in its wake of large quantities of cotton accumulating in inventory. As of the end of this cotton year (i.e. August 1985 before the arrival in markets of new cotton), approximately 70 million dan had accumulated in inventory. Each year of storage for this cotton means financial burdens and losses for the country as follows:

First is the tying up of tremendous amounts of credit. On the basis of a procurement price of 170 yuan per dan, this means the idling of 11.9 billion yuan. If the surplus amount of use in the current year of fixed procurement in the current year plus the amount produced above and beyond the fixed procurement (approximately 30 million dan) are added in, between 14.7 and 17 billion yuan of loan funds are tied up. The tie up of loan funds in cotton seriously impairs credit funds support from the Bank of Agriculture for other production enterprises.

Second is the creation of large losses and waste. Calculations using the 26.51 yuan per dan loss resulting from the storage of cotton for a year in Hubei Province produce a loss for the whole country totaling 1.855 billion yuan. By the end of the 1985 cotton year, accumulated losses for 2 years (by the end of August 1986) will reach 4.237 billion yuan.

Third is the increased investment required to build new warehouses. There is presently a shortage of warehouses; more warehouses (plus some open air storage) will have to be built. Construction of warehouses with capacity to store 20 million dan of cotton will require an investment of 310 million yuan.

A look at the foregoing situation shows an extremely sharp contradiction between cotton supply and demand requiring that vigorous action be taken to strengthen macroeconomic direction and control to achieve a basic balance between supply and demand as quickly as possible. A look at the domestic market shows no likelihood, over the shor run of large increase in the amount of cotton needed either in industry or daily life. A look at the international market shows that because of the outmoded state of China's textile industry on the one hand, and the economic slump in western capitalist countries, on the other hand, that has given rise to trade protectionism, China's exports of cotton textiles has been adversely affected. Therefore, any though of large scale increase in exports of textiles during any future year will not be easy by any means.

2. Measures for Solving the Contradictions

(1) Price Cuts To Deal With Old Cotton

A major problem being faced at the present time is that 1985 fixed procurement cotton will not be used up in the current year, so solution to the problem of old cotton accumulating in inventory is extremely urgent. Should cotton remain in storage for 6 years, losses (including compound interest) would amount to 194.09 yuan per dan (figured at a 7.92 percent annual rate of interest), which is somewhat higher than the current price for cotton. This means that if at the time of ordering procurement of cotton, it is calculated in advance that the cotton cannot be consumed within 5 to 6 years, at the time of procurement one might as well give the cotton to the peasants for nothing instead of taking it, or else burn it immediately after purchase. But we do not have to do that because we can use macroeconomic controls to consume the accumulated cotton within 5 to 6 years time. Right now vast areas of the country (cotton growing areas excluded), particularly border, poor, old and sparsely popualted areas still need cotton for wadding winter garments and quilts. It is proposed that old cotton be sold to these areas at cut prices (and in areas in which it is still difficult to sell cotton at cut prices, interest-free credit sales can be made).

(2) Creation of increased demand for cotton textiles

Even though potential for expanding demand for cotton cloth is not great over the short term; nevertheless, the opportunity should not be lost to guide consumption as an important way of increasing demand for cotton. Thus, full use should be made of all publicity vehicles with energetic efforts made to publicize the superiority of pure cotton textiles for softness, ventilation and absorption of moisture, to get people to tend to favor them. At the same time, new products should be constantly developed and colors, designs and varieties increased to satisfy needs for raising the people's standard of living. For example: (1) To satisfy people's desires to improve their living conditions, more cotton cloth could be used to produce decorations such as window and door curtains, bed skirts, bed covers, tablecloths and furniture (such as sofas), covers for electric sewing machines etc. (2) To meet needs for clothing style changes, more corduroy and denim should be produced. (3) Mixed fiber products that provide the advantages of both should be increased. (4) Methods of making clothing should be changed. For example, undershirts and pajamas could have pure cotton cloth collars on the main body of the garments and chemical fiber cloth on the sleeves. Thus, they would be both easy to launder and comfortable to wear. In addition, cloth-soled are comfortable to wear, so old people like them very much, but since they take a lot of hand work to make, efficiency is low and costs are high so factories are unwilling to produce them and they are unavailable in the market. With technical improvements and mechanized operations, large numbers could be produced to satisfy market demand.

(3) Reduction in amount of contract fixed procurement

1. There are four plans for reducing the amount of fixed procurement as follows:

The first plan calls for large scale cutbacks, namely by using the amount of fixed procurement in 1985 as a basis for calculations. Beginning in 1986, procurement would be curtailed by half each year, i.e., 42.5 million dan. Figuring on the basis of an annual 500,000 to 1 million dan increase in demand for cotton resulting from increase in the amount needed, increase in population, plus the creation of demand for cotton, it would take 3 years to reduce the amount and a basic balance between supply and demand could be achieved by 1988. The advantages of this plan are that it would take a short time to solve the accumulation in inventory and waste, and results would be fast. However, it would also occasion numerous problems as follows: (1) Fairly large economic losses for peasants. (2) Substantial production technology problems resulting from a shift in production, particularly a shift to a growing of crops rarely or never grown in the past. (3) With a shift of production over a large area, preparation of production conditions (such as the need for leveling of the land when shifting to the growing of paddy) would take time. (4) A shift in production would require the readying of certain production implements and corresponding production techniques. Consequently, peasants would not readily accept this plan.

The second plan calls for small scale cutbacks. Using the same calculations used above with cutbacks by one quarter each year, i.e., 21 million dan, and with increase in demand the same as stated above, it would take 10 years to reduce the amount. It would not be until 1955 that procurement would rise again and that a balance between supply and demand would be achieved. The advantages of this plan are that it would surmount the shortcoming of the first plan in that peasants would readily accept it. Its shortcoming is that it would take a long time and results would be slow in coming in solving the accumulation in inventory and waste of cotton and the state's financial burden.

The third plan calls for medium size reductions. Using the same calculations as above, procurement would be cut back one-third each year for a total of 28 million dan. The amount of increase in demand would be the same as given above. This plan would take 6 years to reduce the amount, a balance between supply and demand being realized only in 1991.

The fourth plan calls for a combination of the foregoing plans for a gradual reduction using the same basis for calculations given above, namely a reduction by nearly one-fourth in 1986, a reduction by approximately one-third in 1987, and a reduction by nearly one-half in 1988, and gradual reductions thereafter. Increase in demand would be the same as in the foregoing three plans. This plan would take 5 years to reduce the amount, procurement rising again in 1990 to achieve a balance between supply and demand. This plan could fairly quickly solve the accumulation in inventory and waste of cotton and it could provide the peasants a process for gradual adaptation; thus it is relatively desirable.

2. Principles for cutbacks. Cotton is produced over a fairly wide area in China and the natural and economic conditions, technical levels of production, cotton quality, and economic results in each producing area are not entirely the same. Principles for making cutbacks should therefore be as follows:

(1) Economic results. Where economic results are good, fewer cutbacks should be made; where economic results are poor, more cutbacks should be made. Specifically, this means looking first at yields, i.e., places where yields are high should be cutback less and places where yields are low should be cut back more. Second, it means looking at net earnings per mu, i.e., places where earnings are high should be cut back less and places where earnings are low should be cut back more.

(2) Cotton quality. Places producing good quality cotton should be cut back less; places producing poor quality cotton should be cut back more. Quality of cotton from Shandong is not as good as that from Hubei and Jiangsu. Hubei cotton has inherently good quality and enjoys a fine reputation in the textile industry. Therefore, Shandong cotton should be cut back more and Hubei cotton should be cut back less.

(3) Extent of losses from shift in production. Cutbacks should be less in places where losses from shifts in production are large, and cutbacks should be more in places where losses from shifts in production are small.

(4) Pattern of cotton textile industries. By his is meant considering the pattern of cotton production in terms of proximity to raw materials producing areas of industrial production. Despite the somewhat poor economic results from the growing of cotton in some provinces and regions such as Liaoning, Shaanxi, Shanxi, Gansu, Sichuan and Jiangxi, inasmuch as their cotton textile industry raw materials and cotton batting can be supplied from nearby and since China lacks sufficient transportation, these places should have a certain amount of production. They should not be cut back too much.

(5) Major areas creating the accumulation in inventory. This means finding out what areas are largely responsible for the problem of accumulation in inventory and solving the problem there. Between 1979 and 1984, Hebei, Shandong and Henan provinces doubled their cotton growing area and increased yields twofold. Gross output increased five fold. Shandong was the biggest offender. In 1979, its cotton growing area was only 8,144,000 mu and gross output was 3,336,000 dan. By 1984, however, the cotton growing area had reached 25,686,000 mu, a more than twofold increase, and gross output reached

34.5 million dan, a more than ninefold increase or 27.5 percent of gross output for the whole country. The cotton growing area in south China remained relatively stable.

To summarize the foregoing, only relatively small cutbacks can be made in provinces that are not major cotton producers; the main brunt of cutbacks must be borne by major cotton producing areas. Take 1984, for example, when the output of the five major cotton producing provinces reached 97,485,000 dan or 78.4 percent of gross output for the whole country. Between the major cotton growing areas of south and north China, the main cutback must take place in north China cotton growing areas. In the cotton growing areas of north China, cutbacks must center on Shandong, the main reasons being: (1) inherent quality of Shandong cotton is not as good as Jiangsu and Hubei cotton; (2) it is a principal source of the accumulation in inventory; (3) it would help change the overconcentration of cotton production patterns in China; and (4) it could reduce pressures for the transportation of large amounts of Shandong cotton out of the province. In south China cotton growing areas, cutbacks in the lower reaches of the Chang Jiang should be larger than in the middle reaches, the reasons being: (1) Hubei cotton can be sold not only inside the province, but can also be shipped to markets in south China, Yunnan and Guizhou; (2) village and small town industries on the Chang Jiang delta are fairly well developed so benefits from industrial production are greater than from the growing of cotton. Climatic conditions there are also good, so a change to the growing of grain or some other cash crop would be readily accepted by cotton farmers. Certainly it is also necessary to take into consideration that this area is the country's main cotton textile industry base, which has to be close to supplies of fine quality cotton. In carrying out cutbacks in cotton growing, each province, municipality and region will have to make fewer cutbacks in the 50 base counties that the Central Committee is now in process of laying out one after another in order to insure development of fine quality cotton bases. (Of course, in designating cotton base counties, the foregoing principles must be followed.)

One thing that should be pointed out here is that natural climatic conditions in the middle and lower reaches of the Huang He favor the growing of cotton. Therefore, once cutbacks have been made to a certain extent and procurement begins to climb again, if north China breeds fine cotton varieties, arrangements should be made the some production in the north on the principle of making the most of regional advantages.

3. Possibilities for cutbacks. Take Jingzhou Prefecture in Hubei Province. This prefecture is suitable for the growing of a diversity of crops. It is suited to the growing of grain, cotton, hemp, sesame, wheat, soybeans and peanuts. Depending on market demand, economic benefits, and local production techniques, cutbacks in the growing of cotton could be accompanied by a shift to the growing of the following crops: (1) Grain. The farming of grain could solve the problem of some production counties in this prefecture depending on grain bought back from the state after they have fulfilled quotas. Second, a shift to grain farming could increase economic benefits. Third, this area has water resources and skills. (2) Ramie. First of all, natural climate and soil conditions are suitable for the growing of ramie; second, earnings from growing it it are high, earnings from the growing of ramie being higher than

from the growing of cotton; third, domestic and foreign markets for it are good; and fourth, mixed cotton and ramie cloth can be produced. (3) Sesame seeds. First, conditions for growing sesame are suitable; second, both domestic and foreign markets for sesame are very brisk; and third, earnings from it are fairly high.

(4) Institution of Subsidies and Providing Loans For Shifting Production

1. Institution of Subsidies For Shifting Production. In order for plans to reduce the amount of fixed procurement under contracts to be carried out better, it is suggested that foreign experiences be borrowed for use, appropriate subsidies being provided peasants for any losses sustained as a result of the curtailment of amounts of fixed procurement under contracts. This would also be an inducement for peasants to make a contribution as well to reducing macroeconomic losses, and it would simultaneously help the rational readjustment of the structure of industries. Methods of providing subsidies might be as follows: (1) subsidies (either the full subsidy or part of the subsidy) to be calculated on the basis of reduced income resulting from the shift of production. This method would have to be figured on the basis of land area because figuring on the basis of the difference in income between growing cotton and growing some other cash crop would be both cumbersome and inaccurate. (2) calculation of subsidy on the basis of the amount of reduction of fixed purchases under contract for simplicity and clarity. The reduced amount of fixed procurement under contract could be figured by using the amount of fixed procurement under contract for a given procurement year (say 1986 or 1987) compared with the amount of fixed procurement under contract for 1985. The subsidy figure for each dan of cotton not purchased could be figured on the saving of losses that would be otherwise sustained from having the cotton in inventory for from 1 to 2 years, with progressive incremental reductions. For example, if the subsidy were to be figured for 1 1/2 years, in 1986, it would be 40 yuan per dan reduction, and for 1987 it would be approximately 30 yuan, the subsidy continuing for 2 years. Calculations based on the aforestated suggested plan for production cutbacks would require subsidies totaling 1.06 billion yuan of which the subsidy for 1986 would be 760 million yuan and the subsidy for 1987 would be 300 million yuan.

2. Providing Loan Assistance. Institution of subsidies for shifting production would not complete recompense losses for shifting production. Compensation would also have to be made through development of multiple uses of cotton by-products and through readjustment of the structure of other industries. In cotton growing areas, cotton by-product resources are abundant. At the present time, cotton seeds are only roughly processed and very incompletely used. Ninety-eight percent of cotton stems and 95 percent of cotton hulls are used for fuel. Were full use made of these by-products, the cotton stems could be used to produce fiber board, paper board for packaging and shaving board. Once cotton stems were pulverized, they would be used for the culturing of edible herbs and fungi such as tremella, and the refuse remaining after harvest could be fed to hogs. Short cotton fibers could be used to make paper; cotton husks could be used to produce furfural and edible fungi; cottonseed cake could be used as feed for livestock and poultry instead of using it directly as fertilizer. Use of the foregoing cotton by-products is technically feasible

and economically profitable. Development can increase cotton farmers' earnings. It is suggested that low interest loans be provided cotton growing areas to support development of multiple uses of cotton by-products. In the issuance of loans, the contract fixed procurement amounts for 1985 should be used as the basis for calculating the amount of reduction in contract fixed procurement. Then, a one time loan offer effective for 2 years should be made on the basis of that portion (such as 50 percent) of loan funds that can be retrieved from reduction in fixed procurement on contract (as figured on procurement prices at that time) Thus, calculations made on the basis of the foregoing reduction plan and the new price plan would mean 1.968 billion yuan in loan funds would be needed for the whole country, including 1.312 billion yuan in 1986 and 656 million yuan in 1987.

(5) Lowering and Standardizing Procurement Prices

The rapid development of cotton production in recent years is attributable to many reasons, but the main one is that it has been more profitable to grow cotton than to grow grain or some other cash crop. Weighted average cost figures from the Ministry of Agriculture, Animal Husbandry and Fishery on nine crops grown by more than 200 production teams for the 3 year period 1982 through 1984 (based on actual earnings) show net benefit [gross income minus all costs including interests and taxes] from growing 1 mu of cotton to have been 2.06 times net benefit from growing 1 mu of paddy, and 3.1 times net benefit from growing 1 mu of wheat. Net income [gross income minus all costs other than interest and taxes] per mu of cotton were 2.62 times that per mu of paddy and 4.37 times that per mu of wheat. Though it takes more work to grow cotton; nevertheless, net income per work day from the growing of cotton is still higher than from the growing of grain. Representative sampling of income derived from the growing of grain and cotton by 36 production teams in 12 counties in the cotton growing area of Hubei from 1979 through 1984 shows that even though prices for cotton were not as preferential in south China as in north China, it was still far more advantageous to grow cotton than to grow grain. The net benefit from the growing of cotton was 2.62 times the net benefit from growing paddy and 3.3 times the net benefit from growing wheat. Net income per mu of cotton was 3.97 times net income per mu of paddy and 4.7 times net income per mu of wheat.

A look at the earnings situation for cotton and for grain for both the country as a whole and for Hubei Province shows a gap between earnings from the growing of grain and from the growing of cotton, so the price of cotton should be lowered in order 5than income derived from the growing of cotton will be roughly the same as from the growing of grain. Looked at in terms of the laws of supply and demand, the price of cotton should also be lowered inasmuch as the supply of cotton is currently greater than demand.

To summarize the foregoing, the procurement price for cotton must be lowered, and the principle to be used in making the readjustment should be both to reflect value and to reflect supply and demand, and for readjustment to play a role in controlling production. Peasant ability to bear reduced earnings also has to be taken into consideration. Three possible plans are as follows:

1. Major readjustment, meaning not only abolition of premium prices but also a lowering of the procurement list price. This would mean between 30 and 40 percent drop from the 1983 price, or between 110 and 120 yuan per dan less. However, the profit rate would still be higher than from the growing of grain.

2. Moderate readjustment, meaning abolition of premium prices. This plan would mean an approximately 20 percent reduction in price as compared with 1983, or a price drop of approximately 150 yuan per dan.

3. Minor readjustment, meaning use of the price in South China (straight 40 to 60 percent) as a basis, which would reduce the price by approximately 20 percent as compared with 1983, i.e., approximately 160 yuan less per dan.

Plan 1 would bring production under control rapidly and prevent continued accumulation in inventory; however, peasant income would fall too much, going beyond their ability to bear it. It might have a seriously adverse effect on development of the rural economy and on the peasants standard of living; hence, this plan is not desirable.

Plan 3 would not have a very big impact on the peasants and the peasants would readily accept it. However, it would not very likely play a role in controlling production, so this plan is likewise undesirable.

Plan 2 would have a definite impact on the peasants, and this plus other associated actions would be expected to play a definite role in controlling production.

Even though earnings for the growing of cotton would still be greater than from the growing of grain were the moderate plan to be adopted; nevertheless, the following points will have to be taken into consideration: (1) Risks are greater in growing cotton than in growing grain. (2) Right now prices for agricultural products tend to be low. (3) Prices of livestock products and fruits have been raised. (4) Prices for some of the means of production (such as diesel fuel) have risen. (5) The present passive situation of serious overstocking of cotton has resulted primarily from the state's inability to control themacroeconomy and not from mistakes made by the peasants, so prices alone should not be relied on to regulate production. So it would not be right to lower the price of cotton too much; thus, the moderate plan is desirable. One point that should be mentioned here is that this plan has not taken into consideration the issue of price parities between industrial manufactures and agricultural products. If prices for all agricultural products are to be raised in the future, taking grain as the key link, then the price of cotton will also have to be raised correspondingly.

When considering the procurement price for cotton throughout the whole country, the issue of one price in the south and one price in the north must be studied. The cotton price policy in 1985 was procurement on the basis of an "inverted 30 to 70 percent" for the north and a "straight 40 to 60 percent" for the south. Thus, figured in terms of standard prices, the price in Shandong is 183.79 yuan per dan and in Hubei 163.3 yuan per dan, a price difference of 20.46 yuan per dan. In terms of actual procurement prices (1983 figures), the price in Shandong is 198.20 yuan per dan and in Hubei only

160.11 yuan per dan, a difference of 38.09 yuan. This violates the principle of identical price for goods of identical quality. Economic results (yields, costs, and net income) from the production of cotton in northern cotton growing areas (using Shandong as an example) and southern cotton growing areas (using Hubei as an example) are about the same (net income in north China being just slightly higher), so no change in prices is necessary. At the present time, in particular, when supply is greater than demand and when existing grading standards do not reflect inherent quality, the inevitable result of continuing this way will be continued expansion of inferior quality Shandong cotton and difficulty in reversing the accumulation of cotton in inventory. Thus, we believe that two prices, one for the south and one for the north, should not be maintained, but that there should be a single price for both north and south.

(6) Institution of Limited Free Procurement

The change in 1985 from plan allocation to free procurement of cotton by textile mills played a definitely positive role; however, some new problems arose once supply was greater than demand. In Hebei and Shandong provinces, some textile mills went directly to producing areas during 1985 to order cotton produced in 1985. Thus, cotton growing peasants signed one contract with state organizations dealing in cotton and another contract with cotton mills. This resulted in loss of control over production. Because cotton mills bought cotton from cotton farmers, cotton owned by state organizations dealing in cotton accumulated in inventory. We maintain that there are only a limited number of uses for cotton and little flexibility in consumption, so it is difficult to stimulate consumption by taking restrictions off of dealings and allowing free procurement. Consequently, so long as supply as greater than demand, textile mills should be prohibited from freely procuring cotton directly from peasants. Cotton mills should be allowed only to purchase cotton freely from cotton companies at set supply prices, and they should be allowed to choose cotton of different quality including grade and fiber length that suits their needs.

(7) Step up in Propaganda and Education of the Broad Masses of Peasants and Cadres

Solution to the problem of supply being greater than demand also requires concomittant education as the only way to obtain better results. This should be done mostly in the following regards:

1. Stepping up of propaganda and education on a commodity economy. A monopoly procurement and an assigned procurement system for major agricultural products has been in effect for a long time, and the peasants have become accustomed to producing according to state plan. Now that monopoly procurement of cotton has been abolished and fixed procurement on contract has been put into effect, the peasants are not accustomed to the system and do not understand it. Therefore, increased propaganda and education of the broad masses of cadres and peasants about a commodity economy is needed to make them understand both the need and the method of carrying out production according to market demand. At the same time, the state should step up guidance of the macroeconomy,

promptly pass economic information along to the peasants and gradually get the peasants to learn how to swim in the vast ocean of a commodity economy.

2. Intensification of education about correct handling of the relationship among individual interests, the interests of a part of society, and the national interest. So long as supply is greater than demand, growing of more cotton means increasing the financial burden on the state and more losses and waste. However, since earnings from growing cotton are greater than from growing grain, some of the masses and cadres care only about their own or local income; they do not care about the national interest. They block efforts to cut back production, and some cadres have even called more the growing of more cotton, promising to help sell it. Inevitably means that the efforts are made to sell the cotton from one area while the cotton from another area accumulates in inventory. Consequently it is necessary to intensify education among cotton farmers and cadres in how to handle correctly the relationship between macroeconomic benefits and macroeconomic benefits, and between individual and partial interests and overall national interests in order to insure that cutbacks in contracted fixed procurement plans will be carried out smoothly.

3. Correct handling of "quadrupling." Leading cadres in many places today still plan to grow more cotton as a way of quadrupling output despite the large overstocking of cotton throughout the country. This is obviously wrong. Thus, education of the broad masses of cadres has to be stepped up so that they understand that it is not quadrupling for the sake of quadrupling that is wanted but that they should link quadrupling with improvement of economic results in the microeconomy and the macroeconomy. Otherwise, production of goods in excess of market demands is of no benefit either to individuals or the country.

The foregoing seven measures are mutually reinforcing and should be combined for use.

9432
CSO: 4007/121

RURAL ECONOMIC DEVELOPMENT IN WESTERN CHINA OUTLINED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 10, Oct 85 pp 1-4

[Article by Lei Xilu [7191 6932 4389], Li Yuqin [2621 3769 3830], Wang Weinong [3769 3634 6593] and Pei Xiaolin [5952 1420 2651], Economic Research Institute, State Planning Commission: "Some Tentative Ideas Concerning Development of the Rural Economy of China's Western Region"]

[Text] China's western region encompasses the 11 provinces and autonomous regions of Nei Monggol, Guangxi, Sichuan, Guizhou, Yunnan, Xizang, Shaanxi, Gansu, Qinghai and Ningxia. This region has a 6.83 million square kilometer land area, or 71.2 percent of the total land area of the country. It contains 52.4 million minority peoples or 78 percent of the total minority nationalities population of the country. Hastening the pace of building this region's economy and narrowing the gap between the western region and the central and eastern region holds important strategic significance for further bolstering the unity of all nationalities throughout the country and for strengthening border defense, thereby making the pattern of China's national economy more rational and development more integrated.

Agriculture is the foundation of the national economy. More than 30 years experience in building of the nation shows that by improving agriculture first, impetus can be given to the surveying of natural resources, to education, to science and technology and to transportation and communications. Some facts bearing on the development of agriculture in China's western region include most of the region being at more than 1,000 meters above sea level and some of it at more than 3,000 meters. Except for the Yunnan Plateau, most of the region is arid or semi-arid, precipitation in the northwest and in Nei Monggol region being 400 millimeters or less. In most areas, the provinces and regions of the southwest excepted, cumulative annual temperature is below 2,000 to 3,000 degrees centigrade. The forest cover rate is generally 7.5 percent, but in Gansu, Ningxia, Qinghai and Xinjiang provinces, it is only 0.3 to 3.9 percent. Drought and windblown sand pose a fairly serious threat. These circumstances definitely affect development of farming and animal husbandry; nevertheless, the region possesses fairly abundant usable natural resources as follows: (1) The region has 71 percent of the total national land area. This is 39 mu per capita or 1.6 mu of cultivated land per capita, which is 2.5 times and 1.1 times respectively the averages for the country as a whole. It has 1.05 billion mu of wasteland, or 64 percent of the national total. (2) Its grassland area is 98 percent of the national total, and it has 51 percent of the country's grassy mountains and grassy slopes. (3) It has 770 million mu of forests containing 6 billion cubic meters of forest reserves, which is 45 and 58 percent respectively of totals for the whole country. (4) Theoretical reserves of water power are 580 million kilowatts, of which 290 kilowatts are usable. This is 77 percent of the national total. The annual volume of water runoff is 1.82 quadrillion cubic meters or 69 percent of the national total. (5) It contains substantial reserves of ferrous and non-ferrous metals and non-metallic ores, placing it in the forefront of the country. (6) Each of the provinces and autonomous regions has famous, special, or fine agricultural and sideline products that are renowned both in China and abroad. It has numerous places of historic interest and scenic beauty and picturesque areas, all of which are useful for development of tourism.

The gap is still fairly great between the foregoing resources and needs for development of the northwest rural economy. This is manifested principally in the following: (1) From 1979 through 1984, gross output of grain increased at an average 3.8 percent per year. Grain output was 682 jin per capita; oil-bearing crop output 22 jin per capita, and the gross output value of agriculture 256 yuan per capita, between 7 and 22 percent less than the average for the country as a whole. (2) In 1983, the amount of commodity agricultural products provided per capita of agricultural population was one-third the national average; the region was not self-sufficient in grain, and grain brought into the region from outside it increased from 3.2 billion jin in 1978 to 7.3 billion jin (trade grain and the same applies hereinafter). (3) Net income per peasant was 250 yuan, 60 yuan less than the national average. (4) The problem of sufficient food and clothing for 50 million people remains unsolved. (5) Rural economic benefits are very low and rural industry has developed very slowly. Tertiary industry is backward; transportation is poorly developed; information does not circulate; goods circulate only with difficulty; cultural, scientific and technical levels are low; and the illiteracy rate is high (the illiteracy rate in rural villages for people 12 years of age and older is as high as 50 percent, one-third higher than for the country as a whole).

Disparity provides potential, with diligent efforts to do a good job and with full protection and rational use of the natural resources of the western region to make use of the advantages they provide, by the end of this century a reasonably well off standard of living may be attained and the gap narrowed between the region and the country as a whole. Net income per capita of agricultural population for the whole region can increase more than twofold by the end of the century over what it had been in 1980 to reach between 500 and 800 yuan. Grain output can increase from less than 600 jin per capita to between 750 and 850 jin per capita for self-sufficiency or substantial self-sufficiency in grain within the region. Impetus can be given all-around development of the rural economy; economic benefits can be substantially increased; and the ecological environment can be steadily improved. The key lies in efforts to take firmly in hand the following several strategic actions:

1. Readjustment of the Structure of the Farming Industry. The western region of China covers a vast land area in which transportation is not well developed. Every effort must be made to bring about gradual self-sufficiency or substantial self-sufficiency in grain by the end of this century. Preliminary estimates show that if the western region achieves an output of approximately 280 billion jin of grain by the end of this century (an approximately 80 billion jin increase as compared with 19840, it will be self-sufficient or substantially self-sufficient. In order to achieve this, places suitable for the growing of grain will have to produce grain, and they will have to increase the kinds of grain grown and improve quality as the market requires. Cultivated land on slopes of 25 degrees or greater that is not suitable for the growing of grain will have to be withdrawn from cultivation gradually and turned into forests or used for animal husbandry. Realization of this goal will require, first of all, intensified control over cultivated land. In 1984, some provinces and autonomous regions reduced the amount of cultivated land too much (Sichuan Province reduced it by 1.43 million mu). This was bad for both grain production and agricultural production. It is suggested that all jurisdictions intensify control over cultivated land in the same way that they take firm grip on planned parenthood. The area sown to grain will have to be maintained pretty much at the present approximately 500 million mu level, and yields will have to be increased steadily. Second, full attention has to be given the role of scientific advances in increasing yields. It is recommended that each county set up and perfect centers for the spread of agricultural techniques. Some of the fine varieties that have produced tremendous increases in yields during recent years are now showing signs of regression (Sichuan's hydrid rice, for example); consequently, each province and region must concentrate energies on researching new fine varieties to replace the varieties that have regressed. At the same time, it is necessary to train peasants in a planned way to develop peasant households specializing in the growing of fine varieties, and increase scientific farming. Third, investment of materials has to be increased. There are numerous low yield fields in the western region in which potential for increased yields is great. In general, grain yields increase by approximately 3 jin per jin of chemical fertilizer used. At the present time, the western region uses little chemical fertilizer. The means used to transport grain into the region can transport chemical fertilizer too, so every effort should be made to ship some chemical fertilizer into the region. It is also suggested that some chemical fertilizer be sold to the peasants on credit, repayment being made in agricultural products following the autumn harvest. All places having resources for the production of chemical fertilizer should do all possible to build chemical fertilizer plants nearby. Fourth is the need to build more water conservancy. In the arid northwest and Nei Monggol, there can be no agriculture without water. The water conservancy of the vast hill regions of Sichuan play a very great role in increasing agricultural yields. Existing water conservancy facilities have to be managed and used well; damage to existing water conservancy facilities must be resolutely halted and full use made of the benefits they can provide, raising the utilization coefficient of the ditch system gradually from the present 0.3 - 0.5 to 0.6 - 0.7. In addition, some highly effective water conservancy projects will have to be built to satisfy needs for development of the rural economy and building of the national economy. Water energy resources are abundant in the upper reaches of the Huang He and Chang Jiang. A number of hydroelectric power

stations and water conservancy projects should be built in these areas, and the hydroelectric power stations and reservoirs that are built should reserve a certain percentage of their electric power and water for development of irrigated farmland near the reservoir areas. In the western region, drinking water is still a difficult problem for more than 21 million people and more than 27 million livestock. It is suggested that this problem be approximately 60 percent solved during the Seventh Five-year Plan period, and that it be completely solved by the end of this century. Fifth is to emphasize the building of commodity agricultural product base counties. In order to solve the problem of transporting large quantities of grain over long distances and to alleviate the shortage of transportation, it is recommended that the emphasis on building of commodity grain base counties in China be gradually shifted from grain surplus provinces and regions to the grain-short provinces and regions of the west. Sixth, means must be found to increase the earnings of grain farmers. One of the reasons why peasants in many places do not want to grow grain today is the low earnings from growing grain. In Guangrong Village in Longchang County in Sichuan Province, for example, peasants produced paddy yields of more than 900 jin per mu plus more than 500 jin per mu of fish in 1984 from the farming of semi-drylands or the growing of fish in paddy fields, the output value of the paddy and the fish averaging 851 yuan per mu. This raised their enthusiasm for growing paddy very greatly. Seventh, when commercial units sign fixed procurement grain contracts with peasants, these contracts should stipulate the amount of grain, the varieties, the quality, the price and the time for grain to be sold by the peasants, and they should also stipulate the amount, kinds, quality price and time for commercial units to supply peasants with important means of agricultural production such as chemical fertilizer. Some down payment should also be paid in advance to help with grain production.

2. Energetic Efforts To Plant Trees and Grow Grass To Develop Forestry and Conserve Water and Soil. In order to bring about a benign cycle in the natural ecology of the western region, reckless felling and denudation of forests and soil erosion must be halted. In addition, simultaneous with continued afforestation of the "three norths shelter forest belt," it is suggested that a shelter forest system be afforested in the upper reaches of the Chang Jiang, making it an important integral part of the key three gorges water conservancy project to bring the Chang Jiang under permanent control and to protect the Chang Jiang. The western region presently has 720 million mu of barren mountains suitable for forests. This 62 percent of the national total and includes a 390 million mu barren mountain area in Guangxi, Sichuan,Guizhou, Yunnan and Xizang. These areas get plentiful rainfall and temperatures are high suiting them to the growth of forest trees. These provinces and regions should be built into forestry bases for the country. Energetic efforts should be made to plant grass and trees, to guard against destruction of forest trees, and to raise the survival rate. The running of family forest farms and forest farms run by households in common should be encouraged. State-owned forest farms could also institute individual household contracting. They should also practice scientific planting, improve management, and solve the problem of fuel for the masses. In addition to the planned afforestation of firewood and charcoal forests, firewood efficient and coal efficient stoves should be promoted. Small scale hydroelectric power, thermal power, solar energy, wind energy, geothermal energy and methane gas

should be developed by suiting general methods to specific circumstances, and some coal should be brought into the region in a planned way. The state should allocate some grain, cotton and cotton cloth just as it does to support road construction in order to support the gradual removal from cultivation and reversion to forests or animal husbandry of cultivated slopes with a grade of 25 degrees or more in the western region. Only by assuring that there will be no reduction in either peasants grain rations or income following the removal of land from cultivation will it be possible to bring about genuinely vigorous development of the growing of grass and the planting of trees. Additionally, peasants should be encouraged to contract the afforestation of barren mountains and bringing small river basins under control.

3. Active Development of Animal Husbandry and Aquaculture. Even though the western pastoral area has 98 percent of the country's grassland area, because of the shortage of pasturelands, the small quantity of hay that is grown, the poor quality of hay, and overpasturing, in many areas a situation has been created in which livestock are "robust in summer, fat in the fall, lean in winter and dead in the spring." For this reason, the output value of animal husbandry in China's five major grassland pastoral areas of Nei Monggol, Xizang, Gansu, Qinghai and Xinjiang in 1985 amounted to only 23 percent of gross output value of their agriculture. Gross output of meat amounted to only 5.1 percent of the total for the country as a whole; furthermore, an overwhelming majority of it was provided by the farming areas of these provinces and regions. Since revision of livestock procurement methods, enthusiasm for production has been very high among herdsmen in pastoral areas and semi-agricultural semi-pastoral areas, and livestock production has increased fairly rapidly. Nevertheless the lack of pasturelands is still a prominent problem. There should be further improvement in the livestock and pasture contract responsibility system, giving herdsmen more self-determination over pasturelands and encouraging herder households and combinations of households to build pasturelands, guaranteeing that those who tend them and build them may use them without change for a long period of time in order to help develop and conserve pasturelands. Pastoral areas should decide the amount of hay to e grown on the availability of water, and the number of cattle to be grown on the availability of hay, thereby avoiding overpasturing and destruction of pasturelands. In order to reduce pressure on pasturelands during winter and spring, quite a few places fatten lambs for sale in the same year they are born. Some places breed in pastoral areas and fatten the animals in semi-agricultural and semi-pastoral or in agricultural areas. These methods are very good. In addition, the western region has 540 million mu of grassy mountains and grassy slopes, abundant farm crop stalks and stems, cake residues from the pressing of crops, and bran and husks that can be used as livestock feed. It is suggested that farming areas in the western region adapt general methods to specific circumstances for the promotion of the experiences of Haian County in Jiangsu Province, make active use of all sources of livestock fodder, develop livestock feed and food industries, and promote large scale development of animal husbandry. Places having requisite conditions should make full use of all water surfaces for active development of aquaculture. Aquaculture, consisting primarily of breeding and particularly the rearing of fish in paddy fields and ponds should be vigorously expanded.

4. Vigorous Development of Village and Small Town Enterprises and of Transportation Facilities. Village and small town enterprises should emphasize the process of agricultural and sideline products, traditional national industries, mining, the construction industry, the construction materials industry, and tourist services. In short, they should be founded on advantages that local resources provide, not sticking to a single pattern but developing whatever can be developed. For agricultural and sideline products the processing of which does not require very high technology, every effort should be made to perform processing in production areas so that profits from processing remain in the production area. For those products for which technological requirements are fairly high, the peasants should be encouraged to go into partnership with coastal areas for the common benefit of both. It is suggested that departments concerned pull strings and build bridges to advance economic cooperation while providing, at the same time, preferential treatment through policies, attracting investment and passing on skills by economically developed areas. Requirements must be liberalized to get villages and small towns to run mining industries, and support given with equipment and skills. Mines that can be operated by peasants should be turned over to the peasants. It is suggested that village and small town enterprises in hardship areas be granted reduction or exemption from taxes for several years. One important policy for the development of transportation is to treat roads like commodities, those building and looking after them deriving benefits, a policy being maintained of the country, collectives and individuals all gaining benefits. The building of railroads and major highways needed for expansion of the export trade should be planned and funded by national and local governments. The building of branch lines through various places should rely mainly on arousal of the enthusiasm of the local people. Consideration should be given the following three matters as part of specific policies: First, encouragement of the development of households specializing in transportation or associations of households specializing in transportation, supporting them in the investment of funds and labor in the building of roads, in the building of bridges and culverts, they themselves becoming responsible following construction for care and upkeep, for the collection of fees from vehicles that use them in accordance with transportation department regulations, and for using these funds to continue to develop transportation so that by the end of the Seventh Five-year Plan or the beginning of the Eight Five-year Plan, most of the villages and small towns in the western region of the country will be accessible by motor vehicles or horse carts. Second, it is recommended that the state continue to issue some grain and cotton cloth to assist the western region in the building of highways. Third, it is suggested that energy and transportation taxes collected from needy areas basically remain in these area for development of transportation and communications.

5. Energetic Raising of Funds and Managing and Using Them Well for Development of Rural Villages in the Western Region. Solution to the western region's money problems will have to depend largely on self-reliance, the broadening of production avenues, and the opening of multiple sources for funds. Accumulation of funds in the western region, as presently viewed, will have to go through a process that runs from the sale of raw materials to the sale of semi-finished products after they have been given rough processing, or the two proceeding in tandem. This will be a fairly slow process. Later on, it will develop into fine processing and the initial formation of various kinds of

economically associated entities that organically link the process from raw materials to processing to marketing. Sole reliance on the accumulation of funds within the western region to achieve these things will not be sufficient. It is suggested that the state suitably increase investment of funds in the western region, simultaneously liberalizing policies and attracting funds from outside the region or even from foreign traders. State support funds for the western region will have to come primarily from nurturing the development of local commodity production through the adaptation of general methods to local circumstances, organizing support for key projects and no longer "scattering shots." Four things are specifically recommended as follows: First, treasury funds for the support of agriculture should be used fundamentally for low interest or interest-free loans to support rural commodity production. The Bank of Agriculture should be entrusted with responsibility for their distribution and control, the Ministry of Finance exercising supervision. Second, since the "savings gap" is fairly large in backward area agricultural banks, and since peasants lack experience in both management and use of funds, the Bank of Agriculture should be permitted to invest funds or invest shares directly in start up projects for rural resources to effect a fine mix of resources, techniques, funds, and funds management, with joint shouldering of risks and joint enjoyment of benefits. Third is to give the Bank of Agriculture in the western region self-determination in floating regulation of savings and loan interest rates, bank authorities at a higher level and national authorities concerned supervision the extent and the time of float. Fourth, the state should increase appropriately funds for the development and building of the western region. Fifth, it is recommended that national treasury funds for assistance to undeveloped areas, expense funds to assist border regions, funds for assistance to needy production brigades and expenses for various kinds of construction mandated by the state should be centralized for use in control organizations in individual provinces and regions and centrally planned construction programs and set project goals be used as a basis for their investment in production and construction projects that benefit the masses and develop the economy.

6. Active Development of Foreign Trade. China's western region adjoins more than 10 countries. This situation should be used for active development of cross-border trade with neighboring countries, with the gradual revival and development of inland foreign trade points for planned and directed importation of foreign capital and technology from Europe and Asia and increase in imports and exports in order to increase steadily economic benefits to the rural economy. Certain actions have to be taken to achieve these goals including steady increase in the level of education and understanding of science and technology of rural cadres and the masses, strengthening of management, improving both product quality and yields per unit of area from farming, forestry, animal husbandry, sideline occupation and fishing industries and from rural and small town enterprises, giving particiular attention to efforts to produce various agricultural and sideline products needed in foreign markets, steadily shortening the time required to build agricultural capital construction projects, improving project quality, lowering construction costs, reducing consumption of all materials, paying attention to doing a good job in the processing, storing, transporting and marketing of agricultural and livestock products, and reducing expenses

incurred in the circulation of commodities. Farm, forestry, animal husbandry, industrial, sideline occupation and fishing industry products will have to be made more competitive in international markets and the goal achieved of increased value from increased production. Natural conditions, economic development, nationalities, religious faiths, customs and habits differ greatly among the 11 provinces and regions of the west, within individual provinces and regions and within individual counties, but the development goals and methods proposed in this article apply to the western region as a whole. What should be done and how it should be done in economically developed areas or economically backward areas of the west will require the suiting of general methods to specific circumstances and applying investigation and study in order to formulate alternative programs.

9432
CSO: 4007/150

COMPLETION OF FALL GRAIN, OIL PROCUREMENT, PLANTING URGED

Hefei ANHUI RIBAO in Chinese 9 Nov 85 p 1

[Article: "Provincial Government Convenes Telephone Conference To Reiterate Continued Firm Grip on Grain and Edible Oil Crop Procurement and Autumn Planting Work"]

[Text] On the evening of 7 November, the Sichuan Provincial People's Government convened a telephone conference to reiterate continued firm grip on this year's autumn grain and edible oil procurement and autumn harvest and sowing work. It called upon all jurisdictions to take a serious view of the grain issue and to strive to both fulfill fixed procurement tasks and to insure that contracts are honored. The Standing Committee of the Provincial CPC Committee, Deputy Provincial Governor Meng Fulin [1322 1381 2651] and Deputy Provincial Governor Song Ming [1345 2494] spoke at the conference.

In analyzing the 1985 autumn grain and edible oil procurement situation, Deputy Provincial Governor Song Ming said that progress has been slow ever since the beginning of autumn in moving grain and edible oil into storage in the province. As of the end of October, the total amount of grain and edible oil placed in storage throughout the province has been 46 percent of the procurement quota. This is 30 percent less than for the same period in 1984. Soybean procurement has been 0.36 percent of procurement quota and sesame seed procurement has been 21.6 percent of procurement quota. All jurisdictions should direct serious attention to this matter, take action and speed up movement into storage.

Song Ming said the prominent problems currently existing in grain and oil procurement to be as follows: too many organizations becoming involved in procurement, and transportation of commodities elsewhere for sale, the outflow of grain and oil reaching serious proportions. Some comrades still lack a correct understanding of the new circumstances that have come about in the current grain and oil market. Some grassroots cadres one-sidedly stress the peasants' welfare without regard for state plan and price policies. They do not look after matters as they should but let things drift. Some grain authorities suppose that inasmuch as costs have been assigned, the less purchased and the less money spent, the greater the benefit; it is better to buy less than to buy more, etc. It is hoped that all provincial administrative office, municipality and county governments will conscientiously investigate such matters and bring the grain and edible oil markets under control. Determined action should be taken and resolute suppression carried out against "briefcase merchants" and "middlemen" who upset the grain and edible oil markets and who engage in grain speculation. Positively no one is to be allowed to take advantage of reform to disrupt the grain and edible oil markets or to interfere with fulfillment of state grain and oil fixed procurement quotas.

In his speech, Song Ming made some specific proposals regarding the province's grain and edible oil procurement policies this year. She said that grain is a state plan commodity, that the amount of fixed procurement is a plan task, and that contracts are a legal formgrain speculation. Positively no one is to be allowed to take advantage of reform to disrupt the grain and edible oil markets or to interfere with fulfillment of state grain and oil fixed procurement quotas.

In his speech, Song Ming made some specific proposals regarding the province's grain and edible oil procurement policies this year. She said that grain is a state plan commodity, that the amount of fixed procurement is a plan task, and that contracts are a legal formprocure as much as possible. Grain departments are the principal channels for state dealings in grain. So long as fulfillment of fixed procurement contracts is not affected, procurement of grain and oil-bearing crops at negotiated prices should be carried out actively, negotiated price dealings enlivened, and full use made of their guiding role. Procurement prices for soybeans, sesame seeds and peanuts should be handled flexibly so that prices will be about the same in peripheral areas of the province as they are in the adjacent province. Inland areas of the province may make procurement at proportional prices. Should the market price be higher than the proportional price, the prevailing market price should be used, and commodities purchased at negotiated prices should be sold at negotiated prices. No matter whether purchased at parity price or negotiated price, all soybeans purchased should fill the province's needs first. The provincial government is to be responsible for harmonious solution to the problem of price differential funds, or for consumers making up differences, or for the selling at negotiated prices of commodities purchased at negotiated prices. Except for agricultural taxes, the funds due peasants when they sell grain and oil-bearing crops should be paid at once. Grain stations may not act as agent in making deductions nor may sites for the collection of deductions be set up at grain procurement stations. All jurisdictions are to make checks, and if any problems occur concerning enforced deductions, they should fix responsibility and deal strictly with the matter.

Following Song Ming's speech, Deputy Provincial Governor Meng Fulin emphasized the following: The several specific policies regarding grain and oil-bearing crop procurement in 1985 about which Deputy Provincial Governor Song Ming spoke have been formulated to deal with problems that the provincial government faces in current grain and oil-bearing crop procurement. It is hoped that all jurisdictions will carry them out conscientiously and strive to fulfill 1985 grain and oil-bearing crop procurement quotas. Units concerned should coordinate closely, each one discharging its responsibilities. Should a situation develop of "difficulty in selling grain," grain departments are to take responsibility; should controls over the outward flow of grain and oil-bearing crops not be strict enough, industrial and commercial departments are to take responsibility. In short, when problems occur at any link in the procurement process, responsibility is to be placed on the leaders of the units concerned.

Finally, Comrade Meng Fulin called upon all jurisdictions to take firm control over autumn farming tasks to make sure that they are done completely. He said that today, 7 November, marks "the beginning of winter." and the optimum time for sowing wheat and oil-bearing crops has already passed. The planting tasks that remain to be done throughout the province are extremely daunting and the necessity for completing autumn farm work is extremely pressing. The slightest slackening of efforts will mean a lost opportunity that will make difficult the harvesting of a bumper crop in the coming year. All jurisdictions should regard autumn farm work at as a central task that surpasses all others in importance in rural villages today and strive to fulfill this year's autumn faming tasks. The provincial government asks that the majority of areas throughout the province substantially complete their autumn farming tasks by 15 November.

9432
CSO: 4007/145

BRIEFS

EXPANDED GRAIN, OIL PRODUCTS--During the Sixth 5-Year Plan period, the municipal grain departments vigorously developed the production of grain and oil products. In the past five years, they provided more than 1.47 billion jin of grain and oil products for the urban and rural markets. In 1985, they supplied a total of 370 million jin of such products to the markets. The amount of grain and oil products and cooked foodstuffs purchased by residents in cities and towns accounted for 18.3 percent of the municipality's total sales of grain ration. By the end of last year there were more than 930 enterprises engaged in the grain and oil processing and business. At present, the amount of popular foodstuffs such as noodles, steamed buns, and starch processed and sold by the grain departments has accounted for some 70 percent of their business volume. In addition, they also gradually turned grain stores into grain and oil products business units which guaranteed not only the supply of basic grain rations for residents but also the supply of various kinds of foodstuffs. Of the municipality's 1,600 grain stores, 1,300 were engaged in the grain and oil products business. [Excerpts] [Beijing City Service in Mandarin 1000 GMT 7 Apr 86 SK] /12913

CSO: 4007/371

HENAN RIBAO CITED ON DROP IN MEAT EGG PRICES

HK160849 Zhenzhou Henan Provincial Service in Mandarin 2300 GMT 10 Apr 86

[Text] Today's HENAN RIBAO carried a reporter's commentary on the current pig and poultry production in the province. The article dealt with the drop in meat and egg prices and advanced measures for improvement.

The article read: According to an analysis made by the provincial departments concerned, the recent drop in meat and egg prices is due to many causes. Essentially speaking, this reflects the periodic change in the relationship between supply and demand of meat and eggs. Another important cause is our failure to enforce macroeconomic control after lifting restrictions on meat and egg prices, or our failure to take effective measures. Under the circumstance that market prices are temporarily unfavorable to the production of pigs and poultry, if we fail to take macroeconomic measures to regulate the situation, peasants will inevitably reduce the number of pigs and poultry they are raising because of the drop in the market price of meat and eggs. The drop in the number of pigs and poultry will adversely affect the transformation of grain and result in a drop in the grain price. Worse, it will do harm to the development of the food and light industry and to state revenues in the end. To solve the contradiction in the pig and poultry production in the province, the provincial departments concerned have decided to take two steps: 1) Urgent measures should be taken to reverse the downward trend in meat and egg prices; and 2) various measures for reform should be perfected in a coordinated way, and various relationships in the commodity production of animal husbandry should be properly handled and readjusted.

The current urgent measures are as follows: State-run food departments should purchase as much meat and eggs as possible, actively export meat and eggs to other provinces or overseas, and store the purchased meat and eggs in cold storage. At the present time when the new crop is still in blade and the old one has almost been consumed and when grain prices are increasing, we should give as much grain as possible, which was assigned by the state to readjust the production structure, to household raising pigs and poultry so as to lower the price of forage.

At present, suburban areas and areas where town and township enterprises are fairly developed should use the money for complementing agriculture to develop animal husbandry. [Words indistinct] in the meantime, financial departments at all levels must increase investment in animal husbandry as much as possible and must organize animal husbandry departments at all levels to properly prevent and cure animal diseases.

/12913
CSO: 4007/371

LAND MANAGEMENT RESPONSIBILITY SYSTEM SHOWS GAINS

HK170306 Wuhan Hubei Provincial Service in Mandarin 1100 GMT 15 Apr 86

[Text] All places in our province have further established land management organs and put them on a sound basis. They have universally implemented the land management responsibility system, with the result that the situation in indiscriminately occupying and using arable land has improved.

According to statistics, 15 prefectures and cities and 69 counties and cities throughout the province have set up land management bureaus. Among them, the districts, townships, and towns of 56 counties and cities have set up land management offices. The number of land management personnel has increased from some 300 in 1984 to some 2,500. The whole province has basically ensured that land is controlled in a unified way by land management organs at all levels. At the same time, all prefectures, cities, autonomous prefectures, and counties have implemented the responsibility system by which land for construction must be examined and approved by prefectural commissioners, mayors, governors autonomous prefectures, and governors of counties, and all land management organs must promptly get to know the situation regarding land for construction which is under their jurisdiction.

Land used for nonagricultural construction last year was 100,000 mu less than in 1984. The rate of examining and approving land used in construction increased from 35 percent in 1984 to 45 percent.

/12913
CSO: 4007/371

NEW PROVINCIAL AGRICULTURAL TAXES ANNOUNCED

Beijing ZHONGGUO CUNZHEN BAIYE XINXI BAO in Chinese 18 Nov 85 p 2

[Article: "Hunan To Begin To Collect Agricultural Taxes Next Year on Earnings from Rural Specialties"]

[Text] The Hunan Provincial People's Government recently formulated "Methods for Carrying Out Hunan Province's Collection of Agricultural Taxes on Special Farm and Forestry Products." The regulation is to take effect in 1986, and all units or individuals engaged in the production of special farm and forestry products from which they derive income are subject to payment of an agricultural tax on special farm and forestry products.

The tax applies to fruits, tea, mulberry silkworms, medicinal herbs, flowers (flowers of a commodity nature used for enjoyment and flowers used in the making of teas), nursery stock, bamboo, timber, tea-oil, tung oil, dried bamboo shoots, mushrooms [Lentinus edodes], coir fiber, walnuts, Chinese chestnuts, Jew's ear [Auricularia auricula], raw lacquer, Chinese tallow, pine resin, Hunan lotus, edible lotus root and rushes, mature breeding fish, pearls, fish fry and fingerlings.

Items fitting the following circumstances are exempt from taxation: (1) those not listed under these methods; (2) wild plants that are picked; (3) Farm and forestry products used by state agricultural science research institutions and in scientific experiments performed by agricultural and forestry academies (portions not used in experiments to be taxed accordingly); and (4) special farm and forest products raised on vacant land beside homes (uncontracted land).

The tax rate for various special farm and forest products is to be 8 percent of income from fruits, decorative flowers, medicinal herbs, rushes and Hunan lotus; 6 percent of income from tea, flowers used to make teas, raw lacquer, walnuts, Chinese chestnuts, lotus root, fresh fish (fry that are sold), and pearls; and 5 percent of income from timber, bamboo, tea-oil, tung oil, nursery stock, dried bamboo shoots, mushrooms, mulberry silkworms, coir fiber, Jew's ears, Chinese tallow, and pine resin. An additional 14 percent local surtax is to be paid in addition to the special farm and forest products tax.

The "Methods" pointed out that special farm and forest products obtained from newly reclaimed and newly revived land were to be exempt from special product taxes for from 3 to 5 years from the year the land first begins yielding.

9432
CSO: 4007/146

BRIEFS

HUNAN GOVERNMENT ASSISTS AREAS--The provincial government decided on 14 April to take steps to rapidly help areas hit by hailstorms to resume production. On 10 April, 24 counties and over 300 townships in Loudi, Shaoyang, Xiangtan, Hengyang, Lingling, Huaihua, Yiyang, and Changsha prefectures and cities were hit by hailstorms, which destroyed 3,700 houses, killed 29 people and injured 1,100, and ruined 1.98 million mu of crops. In view of this disaster, the provincial government leadership has proposed three relief steps: 1) The Civil Affairs Department and Agricultural Departments must immediately send work groups to Loudi, Shaoyang, Xiangtan, and elsewhere to find out the situation and comfort the people. They should also study with the local governments ways of resuming production and rebuilding people's homes. 2) The Agricultural Department should promptly organize supplies of seed for areas that need to replant their crops or switch to other crops. Supply and marketing departments should organize supplies of farm tools for places where these were destroyed. 3) The province has now entered the season when natural disasters of all types are prone to occur. The departments concerned must closely watch developments and be quick to organize a fight against natural disasters and to carry out relief work. [Text] [Changsha Hunan Provincial Service in Mandarin 2300 GMT 15 Apr 86 HK] /12913

CSO: 4007/371

BROADCAST COMMENTS ON 'GOOD USE OF INVESTMENT'

HK160745 Taiyuan Shanxi Provincial Service in Mandarin 2300 GMT 9 Apr 86

[Station commentary: "It is More Important to Make Good Use of Investment"]

[Text] This year, many places in our province have increased investment in agriculture. This will play an important part in improving the conditions for agricultural production and in speeding up the development of grain production. The increase in investment in agriculture is an important aspect of improving insufficient stamina for agriculture. However, what is more important is to make good use of investment.

At present, in the issue of capital, one thing merits attention. Some individual places have used their brains very much in increasing investment but attached insufficient importance to making use of investment. Therefore, capital has been found insufficient on the one hand and seriously wasted on the other. This waste has been mainly expressed as follows:

1. Although some capital construction projects lack conditions and are immature and no feasibility study of them is carried out, they are still started.

2. After a feasibility study is carried out, projects that should not be started are recklessly started because of certain needs.

3. Projects are done on too large a scale so that they cannot be put into operation as soon as possible, affecting floating capital turnover.

4. In the course of construction, as a result of lack of careful calculation and strict budgeting, irrational expenses increase.

5. Importance is attached to speed only but not to quality [words indistinct].

Regarding these circumstances, some departments in our province have taken corresponding measures. The provincial water cconservancy department has worked hard to raise the economic results of the investment in water conservancy. This is praiseworthy. Can the other places that have wasted funds examine the situation in investment? In examining the situation in the waste of funds, we must ideologically examine whether we have attached importance to and treasure the state funds and whether we understand that making good use of investment is more important than the increase in investment.

Since the founding of our country, the state has invested several million yuan and even approximately 10 million yuan in some individual water conservancy projects in our province. The amount of investment is not small. However, before construction started, [words indistinct] was not taken into consideration and preparations for the initial period were not made, resulting in waste of manpower and material resources. Some projects could not be put into operation. This is the result of attaching importance to the increase in investment only but not to making good use of investment. This, therefore, requires us to strictly check on investment. We must not invest in projects that do not bring benefit to people. Projects that produce slow results must not be started. Projects that lack conditions, for which no feasibility study is carried out, and that are determined at the will of senior officials must be resolutely stopped.

/12913
CSO: 4007/371

PARTY LEADER CALLS FOR BETTER WATER CONSERVANCY

HK170324 Xian Shaanxi Provincial Service in Mandarin 0030 GMT 15 Apr 86

[Text] In his speech delivered yesterday at the provincial conference on water conservancy and aquatic production work, provincial CPC Committee Secretary Bai Jinian said that after a long period of twists and turns, water conservancy construction has now entered a new stage in the province. Water conservancy work must be shifted to serving the whole rural economy.

Comrade Bai Jinian said that the tendency to neglect water conservancy over the past few years was absolutely wrong. Practice has proved that Comrade Mao Zedong's thesis that water conservancy is the lifeline of agriculture is true. Water conservency is a very important work concerning man's existence and the devleopment of national construction. He pointed out: We must draw a lesson from some places which blindly developed water conservacny construction in the past. We must develop water conservancy in accordance with the laws of nature and of the economy. We must change from merely paying attention to irrigation and water conservancy to serving the whole national economy and the people's life; from merely grasping water conservancy projects to comprehensive operation with stress on water conservancy; and from having the state running water conservancy by administrative means to having the masses administering water conservancy with stress on service. It is necessary to establish and perfect water conservancy service systems and turn water conservancy administration organs into organizations serving the masses.

He said: We must strengthen management of the existing water conservancy installations; promote various effective water cnservancy management reponsibility systems; complete various reconstruction projects as soon as possible; exert efforts to revamp the damaged water conservancy projects; speed up the transformation and replacement of the existing installations; continuously tap the potentialities of the existing installations; bring into full play the role of the existing installations; raise efficiency in irrigation; and increase the utilization coefficient of water. In the meantime, we must speed up the development of water and soil conservation and aquatic production.

Bai Jinian said that it must particularly be pointed out that a good contingent of water conservancy personnel has been trained over the years and most comrades of the contingent have borne hardships, worked hard, maintained a good style, and done their utmost to benefit the masses. They must be commended by the party and government. However, we must also overcome the malpractice of a handful of people becoming divorced from the masses and seeking personal interest by taking advantage of their power.

/12913
CSO: 4007/371

GRAIN PRODUCTION NOT TO BE REDUCED IN READJUSTMENT

Chengdu SICHUAN RIBAO in Chinese 30 Jan 86 p 4

[Article by Hou Shuqing [0186 2885 3237]: "Readjustment of Internal Structure of Agriculture Will Not Cause Reduced Grain Production"]

[Text] At the beginning of last year, farms reduced the land area devoted to grain and increased the area devoted to other cash crops in accordance with readjustment of the productive structure. After the autumn harvests, quite a few districts obtained balanced harvests of grains and other cash crops, indicating that they are moving in the correct direction. Yet there are still some districts which, as a result of problems in planting, have experienced decreases in grain production. Hence, some comrades feel that in these cases the readjustment of productive structure "got fouled up" and are concerned that this might lead to competition for land between grain and cash crops, thus leading to further decreases in grain production. We feel that the opinions of these comrades are ungrounded.

In the readjustment of the rural production structure, the first step is to readjust the proportion of crops being planted, making the amount of land planted with grain and with other cash crops, as well as the produce mix, more reasonable. This is a realistic requirement and a necessary trend in the development of the rural commodity economy. Judging from actual results, generally this part of the readjustment has taken advantage of two key points: one is earnestly and thoroughly using the land for the most appropriate crops, taking full advantage of its natural qualities; the second is using new technology both in grain production and in cash-crop production so that grain and cash crops will not be fighting for land and farmers will not stress cash crops to the detriment of grain production. Since the Juexi area in Yibin County produces both grain and sugar cane, readjustment of productive structure there took place relatively early. From 1980 to last year, the total land area used for cash crops increased from 19,000 mu to 29,000 mu. The cane farmers also plant yams in the sugar-cane fields. Net income per person has risen from not quite 200 yuan per year to over 500 yuan per year for the great majority of farmers. At the same time, the active mobilization of grain production has rather encouraged mixing the production of rice and ground cover in order to stress reasonably dense planting and to prevent erosion. Total grain production has also increased from 50 million jin to 70.9 million jin. These results show that in the readjustment, both agricultural households and management sections only need to emphasize making the most suitable use of the land, appropriately concentrating the advantages of already established fine agricultural traditions and making use of modern, advanced agricultural technology to obtain even greater yields of both grains and other cash crops. In this way, agricultural productivity and rates of commercialization for grain can be increased and the commodity volume of cash crops produced can be raised in order to supply ample sources of raw materials for light industry and to advance the development of rural enterprises. Consequently, farmers' incomes have been increased in three different ways, causing more farmers to become well-off more rapidly.

Once again, let me stress that readjustment of productive structure is an immense undertaking. Considering the agricultural village as a whole, there really are not too many places to plant cash crops; the near future will be an appropriate period for changes, but the great majority of farmers are still hampered by technical and economic limitations, are unwilling to relinquish control of their land, and especially do not want to de-emphasize production of grain. However, the productive structure readjustment which we have described was mandated by the party's policy to enrich the people, in order to keep farmers from being limited to just one grain product which basically does not reflect grain-utilization conditions. By making full use of cultivated and uncultivated land, adjusting the internal structure of planting, and increasing production of rural economic crops, the pathway to rural prosperity can be opened up. Thus, Yibin Country's Zhangsha Township at present is using rice paddies to raise fish and is using uncultivated land to start small fruit orchards, small vegetable plots, and small mulberry gardens. This township uses 1,500 mu of paddy fields to breed fish; except for 85 mu which were converted from fields to fishponds, the effect on grain cultivation has been very slight and the benefits have been considerable. Last year, the proportion of total income which came from diversified production, industrial and secondary products had risen from the 1980 level of 51.8 percent to 75.2 percent; compared with 1982, per capita grain production rose from 830 to 855 jin, and per capita income rose from 226 to 453 yuan. This kind of situation demonstrates that readjustment of the rural productive structure is not simply reducing the amount of land devoted to grain and limitlessly expanding the area devoted to cash crops because that would have led to decreases in grain production. Clearing up doubts and reassuring people of the correct orientation of readjustment must be a major objective in fomenting rural economic restructuring and development of a commodity economy.

9990/9435
CSO: 4007/296

SALES OF VEGETABLE OIL RISE TO MEET DEMAND

Chengdu SICHUAN RIBAO in Chinese 24 Jan 86 p 2

[Article by Chen Yunzhao [7115 0061 6856]: "Sales of Non-Plan Vegetable Oil Increase in Sichuan"]

[Text] Sichuan's nonplan vegetable oil sales since 1979 (including negotiated-price and partially negotiated oil) have been a temporary measure to increase supplies of cooking oil in a time of changing economic conditions and increases in living standards as well as a way to compensate for shortages of fixed-price vegetable oil for an expanding urban and rural population. In 1982, our province sold 50 million jin of nonplan vegetable oil, in 1983 this rose to 240 million jin, in 1984 the figure rose to 270 million jin, and in 1985 it maintained this level.

Nonplan sales of vegetable oil have been increasing from year to year mainly due to the following two reasons: The first is the increased production of cooked and fried foods. In recent years, the production of breads, fried foods, convenience noodles, cookies, cakes, fish skins, peanuts, and other foods which require oil has greatly increased, causing a considerable increase in the demand for vegetable oil. The second is a recent change in oil-consumption patterns. In the past, many people in Sichuan who lived to the south and east of the Chiang Jiang mainly used lard instead of oil. The farmers' main purpose in growing oil seeds was to sell the oil in order to purchase commodity goods. Now that living standards have been rising because of careful management and development, oils made up partly of vegetable oil and partly of lard have been appearing on the market; some sections have been tending to become mainly vegetable-oil-consuming areas.

Nonplan vegetable oil sales have been stimulating the production of grain oils. At the same time, nonplan vegetable oil sales in Sichuan have not only caused the market to be vitalized and the commodity turnover of vegetable oils to increase, but also excess stockpiles have been reduced, the state's financial burden has been decreased, farmers' monetary incomes have increased, and the management of the grain bureau has been improved. Because of increased production of rapeseed, fertility of the seeds has increased, which has caused spontaneous increases in grain production and rapeseed production.

9990/9435
CSO: 4007/296

RISE IN PEASANT INCOME, LIVING STANDARDS REPORTED

Chengdu SICHUAN RIBAO in Chinese 29 Oct 85 p 1

[Article: "Peasant Earnings Increase and Living Standards Rise; Survey of Income and Expenditures of 5,500 Peasant Households in Province Shows Increase in Amount of Cash Held by Peasants and Increase Rate from January Through September Surpass All-Time Highs"]

[Text] In 1985, Sichuan Province saw its first results from readjustment of the structure of rural industry with a tremendous increase in peasant cash earnings. A survey of receipts and expenditures of 5,500 peasant households in 55 counties showed cash earnings (exclusive of income from savings and loans, the same applying hereinafter) from January through September for these peasant households to have averaged 189.80 yuan, a 34.42 yuan increase over the same period in 1984 for a 22.1 percent increase. Both the increase in cash income and the rate of increase surpassed the level for the same period in any previous year. The amount of increase for the 9 months was 11.57 yuan higher than the amount of increase for all of 1984.

Increase in peasant cash earnings reflects the sustained steady development of the province's agriculture and further exploitation of advantages for the livestock raising industry. Per capita cash income from sales of agricultural and sideline products by these peasant households for the period January through September was 112.31 yuan, 55.04 yuan of it from livestock products. This was a 12.2 percent and a 22.3 percent increase respectively over the same period in 1984. The broad masses of peasants actively developed hog raising, introduced superior breeds, and practiced scientific feeding. Both the numbers of live hogs in inventory and pork production both increased tremendously. Per capita cash earnings from hog sales for the period January through September was 30.92 yuan, a 39.5 percent increase over the same period in 1984. During 1985, Sichuan Province's village and small town enterprises have developed steadily in the midst of readjustment and reform. Per capital peasant earnings from January through September from rural and village enterprises and jointly operated enterprises increased 83.8 percent over the same period in 1984. In the household business field, the broad masses of peasants actively developed processing of agricultural and sideline products, and developed food and livestock feed industries. Per capita cash earnings from secondary industries was 60 percent higher than for the same period in 1984. Tertiary industries developed at many levels and in many trades, and per capita cash earnings from them were 62.7 percent higher than for the same period in 1984. The transportation industry, businesses, and food and beverage service industries developed rapidly, peasant per capita cash earnings from them increasing several fold.

From January through September, per capita cash payments (not including payments of a savings or loan nature, and the same applies hereinafter) by peasants in the 5,500 households were 183.32 yuan, an 18.1 percent increase over the same period in 1984. The extent of payments for the purchase of means of production continued to be higher than the extent of increase in expenditures for consumer goods. In recent years peasants have substantially purchased the fixed assets they need to develop production, so now expenditures are mostly an increase in current year investment in production. Peasant expenditures for the purchase of food have increased fairly greatly, the percentage spent for non-staple foods rising and the percentage spent for staples declining. However, among expenditures for the purchase of consumer goods, the percentage spent for food declined. Among expenditures for clothing, the proportion spent for ready-made clothing increased, and consumption of cotton cloth to make clothing decline. Peasants spent 33 percent more than during the same period in 1984 to improve living conditions.

9432
CSO: 4007/145

PROGRESS, PROBLEMS, PROSPECTS FOR COTTON PRODUCTION

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 10, 23 Oct 85 pp 54-57

[Article by Tian Yuanjun [3944 0337 0193]: "Make Xinjiang Into China's Quality Cotton Commodity Production Base"]

[Text] Cotton production in China during the past several years has developed at surprising speed. Those concerned predict that by the end of August 1985 the amount of cotton in storage throughout the country will equal nearly twice needs for the year (including export). If Xinjiang's plans can be realized in 1985 for export of 800,000 dan, for shipment elsewhere in China of 700,000 dan, and for sales within the province of 800,000 dan, the amount of warehoused cotton will be 2.4 times what it was for the same period in 1984. Reportedly the whole world is currently in the midst of a cotton glut. In view of this situation, how to plan in an equitable way Xinjiang Province's future cotton production is an important problems urgently awaiting thorough study for solution.

A relatively correct way of doing this should be as follows: Production generally in accordance with state plan for the next 2 or 3 years. In 1985, the state cotton output plan for Xinjiang called for 3.48 million dan versus the production of 3,846,000 dan during 1984, or nearly 10 percent less, and it ordered procurement of 3.35 million dan, or 7 percent less than in 1984. In comparison with 1985 production plans for the country as a whole, the foregoing amounted to a 26 percent decrease from 1984 and a 24 percent decline in the amount ordered for purchase, both of which were much less. This took into account Xinjiang's location in a frontier area populated by minority nationalities, and the relatively good quality of its cotton for which special consideration was given the province.

We must fully realize the features of commodity production, improve our concepts of commodity production and look at commodity production in terms of the demand for cotton inside and outside the country. We will have to keep cotton output at the same level or even reduce it appropriately, make vigorous efforts to improve the quality of cotton and of its packing and processing, open new markets, and strive to reduce or eliminate inventories in order to improve economic results from cotton production.

In national and long-range terms, this requires carrying out the Central Committee's magnificent strategic plan for the development of Xinjiang, gradually building Xinjiang into China'a quality cotton commodity production base.

In comparison with its fraternal provinces, municipalities and regions, Xinjiang Province holds numerous advantages for the development of cotton production as follows:

1. Abundant light and heat resources. Xinjiang is second only to Xizang in the amount of solar radiation received. The number of days of sunshine on its plains throughout the year are markedly greater than in the cotton growing areas of the Chang Jiang basin and the Huang He basin. As a result of the effects of increased temperatures in its inland basins, cumulative temperature in plains areas when the temperature averages 10 C or more range from 3,450 to 4,200 C per year. In the Turfan Depression, they reach 5,300 C or higher. These temperatures are higher than in most of the country's provinces and cities at the same latitude. The annual average daily difference in temperature in Xinjiang is between 12 and 15 C, which is rare in other provinces or cities.

2. Dry climate with little rain; few cotton diseases or insect pests. Precipitation in plains agricultural regions amounts to only approximately 100 mm per year, and even less rain falls during the time when cotton bolls open. The growing of cotton is entirely dependent on irrigation. Supplying water promptly as needed to insure fine growth produces cotton of fairly high quality and quantity. Costs of controlling insects is less than half that of fraternal provinces and cities, and the cotton boll premature drop rate is lowest in the country.

3. The economic output coefficient for cotton is 40 to 50 percent, about 10 percent higher than in other cotton growing areas of the country.

4. The ratio of grain to cotton output is 3-5:1, while it is 4-8:1 in most other parts of the country.

5. Long fiber cotton output is more than 95 percent of the total for the country.

6. Cotton quality is good. Statistical data on the average grade for cotton purchased by the state in 1982 show a 1.81 grade for Xinjiang, while Hebei had 2.35 grade, Shandong 3.38 grade, Henan 3.22 grade and Hubei 3.11-4.00 grade. The national average for 1 - 2 grade cotton purchased between 1972 and 1982 was 38.8 percent; for Xinjiang, it was 78.6 percent.

Quality indices for Xinjiang long fiber cotton equal or exceed those for Egyptian cotton except for strength.

7. High economic results from production. For details, please see Table 1.

Table 1. Economic Results From Cotton Production in 1982

Area	Yield per mu (jin)	Value per mu (yuan)	Cost per mu (yuan)	Net after tax earnings per mu (yuan)	Cost-net earnings rate (%)	Net output value per work day (yuan)
National average	94.7	164.37	92.42	67.87	73.4	2.89
Southern cotton growing region	94.0	150.33	92.93	52.57	56.6	2.37
Northern cotton growing region	95.3	178.41	91.91	83.18	90.5	3.51
Xinjiang	94.0	172.56	68.85	101.14	146.9	5.76

Notes: 1. Data taken from a national representative sampling statistical table compiled by five units including the State Price Bureau and the Ministry of Commerce. 2. Net output value per work day calculated from actual sale prices of major products.

Xinjiang Province greatly outdistances all provinces, cities and regions in the country in both the cost to net earnings rate and output value per work day from cotton production.

Since natural conditions for the growing of cotton are good in Xinjiang, net after tax profits per dan of cotton are much higher than for most fraternal provinces and cities even after subtracting the price differential for better quality cotton than in fraternal provinces and cities, and the railroad transportation expenses for sales to fraternal provinces and cities, figured at 16 yuan (though they are actually 13.40 to 16 yuan). Composite representative sampling data for 1980 - 1982 compiled by units including the State Price Bureau are provided in Table 2.

Table 2. Comparison of Average After-tax Earnings Per Dan of Cotton, 1980-1982
Unit: Yuan

Particulars	National	Southern cotton growing region	Northern cotton growing region	Shanghai	Hebei	Shaanxi	Hubei	Liaoning	Xinjiang
After-tax earnings per dan of cotton	66.05	49.49	81.40	51.36	70.96	65.01	42.66	67.68	105.05
Net earnings for Xinjiang, substantial even after subtraction of 16 yuan	23.00	39.55	7.65	37.69	18.09	24.04	46.39	21.37	

Cotton cultivation in Xinjiang Province today is non-intensive particularly as done by county towns. If the level of scientific farming by counties were to catch up with that of large military units, the whole province would overtake advanced fraternal provinces and cities, and both cotton yields per unit of area and net income per mu would rise greatly. After-tax net income per mu of cotton would be much greater than in fraternal provinces and cities.

In addition, Xinjiang has a lot of land, land averaging 3.7 mu per capita, which is 2.5 times the per capita average for the country as a whole. There is more than 100 million mu of first and second grade wasteland suitable for farming remaining. This is more than 20 percent of the total for the country as a whole. The province has been more than self-sufficient in grain since 1983.

Forecasts and assumptions based on various circumstances call for Xinjiang to grow 5 million mu of cotton with a gross output of 6 million dan by 1990. By the end of this century, it will grow 7 million mu for a gross output of more than 10 million dan. When that time comes, this will be more than 10 percent of the whole country's needs.

With such a growth in Xinjiang's cotton output, where will it be marketed?

First of all, from the standpoint of the country as a whole a readjustment of cotton production patterns is necessary. Today the country's cotton growing areas are concentrated in the middle and lower reaches of the Huang He and in the middle and lower reaches of the Chang Jiang where the cotton growing area has reached saturation and where competition between grain and cotton for land is intense. The supply of cotton production is greater than demand; quality of the cotton is low and does not satisfy needs; in some provinces, yields are low and inconsistent (as in Shaanxi Province, for example, where 3,768,000 mu produced yields of only 21 jin per mu in 1983); and economic benefits from growing cotton are not as high as from growing grain crops.

Distribution of cotton producing areas throughout the world has shifted gradually from wet areas to semi-arid and arid areas. Since the 1930's, the key cotton growing areas of the United States have shifted from the southern and southeastern states to the west where natural conditions are similar to those in Xinjiang Province. This has resulted in a decrease in calamities occasioned by overcast and rainy weather, diseases and insect pests, has improved cotton quality and has brought into being commodity cotton production belts such as in California where the cotton growing area at the present time covers more than 10 million mu, one-seventh of the total for the United States, and where yields average 150 to 160 jin per mu. This has spurred development of American cotton production to make it the largest cotton exporting country in the world. Ever since the 1950's, the USSR has also worked vigorously to build cotton growing areas in arid and semi-arid central Asia. In 1979, the cotton growing area of four republics in central Asia covered 40.95 million mu, which was 88 percent of the cotton growing area in the USSR. Yields averaged 166 jin per mu. As a result, the USSR changed from not being self-sufficient in cotton to an exporter of large quantities. At the present time, other high yield cotton growing areas in the world are also in arid regions. The adjustment of crop patterns in these regions provides useful lessons. China should also distribute production rationally according to ecological conditions for growing cotton shifting the growing of cotton as much as possible to Xinjiang to make Xinjiang Province a commodity production base for the whole country of fine quality upland cotton and long fiber cotton.

Second is rational development of the textile industry. First should be improvement in the quality of textiles, increase in designs, colors and varieties, and development of a modern clothing industry. Xinjiang, with an output of approximately 200 million meters of textiles annually, produces only 36 percent of textile products because of its limited printing and dyeing capacity. In addition, its technological level is low, the colors and designs of its products are monotonous, their competitiveness is weak, and consequently they accumulate in inventory. Every year it is necessary to import more than 40 million meters of cloth from fraternal provinces and cities. For the past 10 years or more, Xinjiang's exports of cotton cloth have hovered around the 10 million meter mark, mostly because of narrow width and the unsuitability of varieties. Every means must be used to improve the quality of cotton textile products and the province's printing and dyeing capacity, to increase the range of colors and varieties, to change the width of cloth intended for export, to use quality cotton, to produce high quality cotton cloth and new cotton cloth products, and to strive to develop a modern clothing industry. In addition to satisfying domestic needs for piece goods and clothing, everything possible should be done to increase sales outside the province and exports. Furthermore, use of cloth that is a mixture of chemical fibers and cotton in outerwear is growing rapidly, with 29.5 percent of all cloth produced in the country being a mixture of chemical fibers and cotton, but in Xinjiang only 10 percent is a mixture. Strenuous efforts should be made to develop a mixture of chemical fiber and cotton cloth. Finally, quality of Xinjiang cotton is high; it makes up into beautiful yarn; it is strongly competitive, and its export is not restricted by "quotas." In 1984, Xinjiang cotton yard was exported to seven countries and regions. More than

12,000 bales were exported and the cost of earning foreign exchange was only 2.45 yuan. More cotton yarn should be exported.

Third is export of raw cotton. Quite a few countries and regions are already rather interested in Xinjiang cotton. In 1984 Xinjiang exported 580,000 dan of cotton to eight countries and regions including Hong Kong, Japan, Romania, and the USSR. This was more than double the amount exported during 1983. In 1985, as a result of a meager cotton harvest in the USSR that reduced exports, Xinjiang concluded supply and marketing contracts with nine countries and regions for more than 1.1 million dan of cotton (including 900,000 dan of first quality upland cotton with fibers 29 mm long or longer and the rest long fiber cotton). All that is needed is active contacts and effective work for the Xinjiang cotton export trade to look forward to continued expansion.

Competition will become increasingly intense in both domestic and foreign cotton and cotton textile markets. Xinjiang will have to make the most of its strengths and get around its weaknesses and work actively to achieve high quality and low costs. This is the only way that outstanding natural strengths can be turned quickly into strong commodity advantages and economic advantages. This will entail the following:

1. Breeding and promotion of fine varieties to improve cotton quality. Some of the cotton varieties currently being cultivated are poor, and many have become mongrelized and have regressed. Right now there is a ready market for upland cotton with fibers 29 mm long or longer. Japan has indicated that it will take all it can get. But only 45 percent of our cotton output is of this kind of which the least is 129 grade (premium 29 mm long fiber) at 31.2 percent. All of the more than 1 million dan of cotton in storage is fairly short fiber cotton. The Japanese Chori Company's purchases of Xinjiang long fiber cotton in 1984 amounted to 70 percent of the cotton used by the company. Traveling traders have reminded that the company has used Xinjiang cotton for 4 years and that there has been a trend toward decline in several quality indicators including length of main fibers and the short fiber rate. Strength of our long fiber cotton continues fairly slight. Quality is life. Vigorous actions have to be taken including institution of a seed work program of "four transformations and one supply," widening of price differences on the basis of quality, resolutely getting rid of inferior breeds, purification and rejuvenation of the better breeds, and rapid promotion of fine varieties such as Xinluzao No 1, 66-241, and Junmian No 1. Variety 108 should be rejuvenated. Though its ginning outturn is high, fiber length tends to be short at around 27 mm, so its usefulness within the region is limited and its market is not wide. A substantial amount of this kind of cotton is grown in southern Xinjiang, particularly in Kashi Prefecture. The amount should be reduce for it should not be grown at all. At the same time, serious attention should be given the breeding of new breeds that ripen early, resist disease, produce high yields, are strong, have long fibers and are fine so that the proportion of cotton with fibers 29 mm long or longer will be greater than 90 percent by the end of this century so as to meet requirements of both domestic and foreign markets, for steady replacement and updating, and to achieve high yields, fine quality and great earnings.

2. Equitable distribution with institution of regionalized and specialized production. Cash earnings have been high from the growing of cotton during the past several years, so even some places where cumulative temperature is insufficient and that are not suitable for the growing of cotton have gone ahead blindly to grow cotton. The inevitable result has been low yields, poor quality, small cash earnings, or even losses greater than gains. In 1984, 49 counties throughout the province grew cotton including 21 on a more than 50,000 mu area, 14 on a less than 10,000 mu area, eight on a more than 100,000 mu area, and seven on a 1,000 mu or smaller area. Facts have shown that farming that is dispersed and amounts small does not favor the promotion of advanced science and technology, does not favor the modernization of cotton processing, packaging, storage and transportation, and does not favor increases in yields and economic results. In 1983, the cottonfield area was between 20 and 28.5 percent of the total area sown. In the relatively concentrated division and county growing areas, yields were 88 jin per mu, while in the 32 division and county growing areas where only 10 percent or less of the area was sown to cotton, yields were only 46 jin per mu. Two objective laws have to be obeyed. It is necessary to take account of the suitability of the ecology and to take into consideration economic sensibleness, distributing cotton production correctly and instituting as quickly as possible both the regionalization and specialization of cotton production. Counties and farms having requisite conditions should be given needed support for the establishment of fine quality cotton export bases.

3. Major attack on yields. Though cotton yields in Xinjiang have risen very quickly in recent years reaching 65 jin in 1982, 76 jin in 1983 and 91 jin in 1984; nevertheless, they are 29 jin lower than the 1984 national average. Inside Xinjiang, production and construction military units harvested yields of 100 jin per mu, while county towns harvested only 84 jin. In county towns such as Turfan and Shanshan large area yields averaged 110 jin and 112 jin respectively, while yields in Atushi and Qiewei were only 36 and 38 jin respectively. Clearly the potential is very great. For the next several years, the tapping of potential through intension should be paramount with nergetic increase in the level of scientific farming, institution of intensive farming, selection of fine varieties, promotion of farming using ground mulch, increased and more skillful fertilization, irrigation at the right times and in the right amounts, prompt final singling and pruning of seedlings and such relatively advanced measures in order to raise cotton yields as quickly as possible and strive to attain yields of 120 jin per mu by 1990 and of 150 jin per mu by the end of this century.

4. Improvement of administration and management for good performance in the processing, transportation and marketing of the product. Both agricultural production units and commercial and trade units should energetically improve administration and management, increase income and reduce expenditures, and lower production and marketing costs. Since the grade of Xinjiang cotton is high, the prevailing out-shipment base price (for upland cotton third grade with a fiber length of 29 mm) is 11 yuan higher than the national average. However, it has to travel a long distance and railroad transportation costs to Shaanxi Province alone amount to 2.40 yuan per dan of cotton, to Tianjin 4 yuan, to Liaoning 4.50 yuan, and to Shanghai 5 yuan. Thus, the outshipment base price per dan of cotton plus railroad transportation costs are between

13.40 and 16 yuan greater than the supply and marketing price of locally supplied cotton in Shaanxi, Tianjin and Shanghai. The objective should be to make the retail sale price per dan of cotton including miscellaneous shipping expenses to fraternal provinces and cities close to or a little less than the supply and marketing price of locally produced cotton without any loss of benefit to farmers and business units in order to win out by supplying a fine product at an inexpensive price.

In order to strengthen competitiveness, facilities should also be steadily replaced, advanced technology introduced, and a strict system of personal responsibility for production instituted. Cotton processing and packaging should be modernized and standardized to meet technological and customer requirements. Foreign warehouse rental fees are large and interest rates high. Foreign trading agencies want goods supplied on time and in the proper amounts strictly in accordance with actual amounts needed by their plants. Xinjiang is a long way from ports. There are many transfer points and it takes much time for cotton to reach ports, so close organization, proper planning, on-time delivery, and scrupulous adherence to contracts is necessary to build up good commercial confidence.

5. Introduction of advanced technology for great improvement in the quality of textiles. Because of outmoded production techniques, quality of Xinjiang's textiles is generally relatively low and varieties are few; thus, exports of cotton yarn and gray cloth form a substantial percentage of the total,and this not only hurts the amount of sales, but also reduces economic benefits. The importation of advanced equipment and technology is urgently needed as is joint operations with fraternal provinces and cities or even with noted foreign manufacturers to make full use of the enthusiasm of scientific and technical personnel in the region, to improve rapidly the scientific and technical level of the broad masses of staff members and workers, to improve product quality rapidly and gradually to make products more diversified, of high quality and suited to both domestic and foreign requirements. It is necessary to produce an ever increasing amount of cotton prints, colored cotton cloth and clothing in many patterns and colors that are beautiful, and styles that are new that are relatively inexpensive for a further change in the situation of shipping large amount of goods outside the province for processing and shipping increasingly large amounts for sales outside the province and for export.

6. Improvement of information and opening of markets. A broad understanding and pervasive study of the supply and demand situation for cotton and cotton products within the region and inside and outside China is necessary. It is necessary to improve our own ability to meet new situations and to produce and market according to requirements in different places. We should do all possible to sign long-term supply and marketing agreements and contracts on the exchange of commodities to help products find markets. In the export field, we should first strive to get a firm foothold in Japan and Hong Kong markets and then advance into the whole world, particularly into nearby countries to the west of the region such as the USSR, Pakistan and even eastern European markets.

9432
CSO: 4007/119

Biochemistry

STRUCTURE FUNCTION STUDIES ON TRIPEPTIDE ANALOGS OF BRADYKININ POTENTIATING PEPTIDE

Shanghai SHENGWUHUAXUE YU SHENGWUWULI XUEBAO [ACTA BIOCHEMICA ET BIOPHYSICA SINICA] in Chinese No 6, Nov 85 p 679

[English abstract of article by Wang Shouzhen [3769 1343 4176] et al., of Shanghai Institute of Biochemistry, Chinese Academy of Sciences]

[Text] In the previous paper it was shown that around 90 percent of the original biological activity was still present in the C-terminal tripeptide of bradykinin potentiating peptide (BPP, pyro Glu-Gly-Arg-Pro-Pro-Gly-Pro-Pro-Ile-Pro-Pro) isolated from the Chinese pit viper (Agkistrodon halys Pallas). In order to study the structure function relationship of BPP, a series of tripeptide analogs of BPP were synthesized and investigated by two biological assays, i.e., potentiating response on bradykinin (BK) and inhibitory activity on angiotensin converting enzyme (ACE).

The tripeptide analogs of BPP: Ile-Pro-Pro, Ile-L-Ala-Pro, Ile-D-Ala-Pro, Glu-Ala-Pro and His-Ala-Pro have been synthesized by the conventional method. It was demonstrated that Ile-Pro-Pro retained both higher potentiating response on BK and inhibitory activity on ACE. However, the penultimate Pro residue in this analog was not indispensable for the biological activities. The replacement of Pro in this position by L-Ala led to apparent increase in the inhibitory activity on ACE, while its potentiating response on BK almost remained unchanged. If the D form of Ala was used, both biological activities decreased remarkably, especially for the inhibitory activity on ACE. It implied that the L conformation of the penultimate residue in these BPP analogs is needed for their biological functions. When the N-terminal residue Ile of the analogs was substituted for the negatively charged Glu, the potentiating response on BK only slightly decreased, while the inhibitory activity on ACE dropped to about 2 percent of the original. When replaced by the positively charged His, similar results were found. Thus it could be concluded that the two biological activities inherent in these tripeptide analogs of BPP were not parallel to each other. It was most likely that the potentiating response on BK in vitro might be due to the influence of BPP on the binding receptor for BK, rather than the inhibitory effect on kininase II (the same enzyme for ACE). The present results were consistent with that reported in the previous paper, which it was noted that the isolated guinea pig ileum strips treated with metal chelating agents to irreversibly inactivate kininase still responded to BPP, therefore the potentiating effect on BPP was not due to the inactivation of kininase.

/9365
CSO: 4011/31

Mechanization

MECHANIZATION OF FORECAST OF CHINESE AGRICULTURE BY YEAR 2000

Beijing NONGYE JIXIE XUEBAO [TRANSACTIONS OF THE CHINESE SOCIETY OF AGRICULTURAL MACHINERY] in Chinese No 4, 25 Dec 85 p 12

[English abstract of article by Lu Guoying [0712 0948 5391], et al., of the Chinese Academy of Agricultural Mechanization Sciences]

[Text] Summing up the overall demands on agricultural mechanization posed by the development of agricultural mechanization, the reform of rural economy system, and the development of the rural economy in China in the past 30 years, this paper discusses the development prospects of mechanization in China by the year 2000 with the scientific predicting method. The paper points out that, by the year 2000, there will be selective mechanization with reasonable developing velocity around the agricultural economical benefits. It will be taken up in order of priority between both departments and regions, and the emphasis will be laid upon certain mechanization objects and operations. The mechanization of agriculture will further break through the limited scope of the crop planting (mainly field operations) and turn to multilinks including preproduction, in-the-production and post-production for multisector such as field crops, forest, animal husbandry, sideline production, and fishery. The mechanization of the rural industry and sideline production, especially, the processing of agricultural products and byproducts as well as the rural transportation will enjoy priority in development, primary and secondary tillage, irrigation as well as drainage, crop protection, threshing, etc., for the main food and cash crops will accomplish mechanization basically, the mechanization of both the animal husbandry and compound feed as well as granular feed production for the poultry and livestock such as chickens, poultry, cows, pigs, and sheep will be developed emphatically. For the forest machinery, the stress will be put on development of the afforestation, forest-raising, and forest products processing machinery. For the fishery machinery, the emphasis will be given to the machinery for breeding, freshness preservation, storage-transporting, and processing as well. The paper mentions that the total power in agriculture will amount to 480 million HP [horsepower] among which, farm tractors, 135 million HP, farm trucks, 5,000-7,000 HP; for irrigation and drainage, about 14.5 million HP; for rural industry and sideline production, about 140 million HP. This article analyzes also macroeconomic effect for developing agricultural mechanization and proposes seven strategic measures involved.

/9365
CSO: 4011/17

Veterinary Medicine

STUDIES ON IMMUNOMORPHOLOGY OF HORSES, DONKEYS IMMUNIZED WITH ATTENUATED VACCINE OF EQUINE INFECTIOUS ANAEMIA

Tianjin XUMU SHOUYI XUEBAO [ACTA VETERINARIA ET ZOOTECHNICA SINICA] in Chinese No 3, Aug 85 p 193

[English abstract of article by Li Jinzhang [2621 6855 3864], et al., of the Harbin Veterinary Research Institute, Chinese Academy of Agricultural Sciences]

[Text] Immunomorphological observations were made on 10 donkeys and 14 horses immunized with an attenuated vaccine of Equine Infectious Anaemia (EIA), with healthy donkeys (7) and horses (2) and 2 virulent EIA virus-infected horses acting as controls. It was found that the main reactions of the immunized animals appeared in the immune organs. In comparison with normal healthy animals, the size and weight of the thymus increased over 45 times, follicles of the spleen enlarged more than 1.5 times. These changes and the enlargement of the lymph node follicles were the result of parenchymatous proliferation. Immunologically competent cells were found in increased numbers in the bone marrow, periarterial lymphatic sheath of the spleen, and the paracortical areas of lymph nodes. Characteristic cellular nodules could be seen in the liver. Other changes were extremely slight. The pattern of pathological changes in the immunized animals set them distinctly apart from normal healthy horses and donkeys as well as horses affected with various forms of EIA.

Marked increase in macrophages was seen in various immune organs of the immunized animals, and in the bone marrow the macrophages and immunocompetent plasma cells were closely associated to form "plasma cell islets." In the periarterial lymphatic sheath of the spleen, macrophages and blast-transformed T cells could be found in intimate contact. Blast transformation became predominant in the cortical areas, and the number of Hassall's corpuscles and special cells increased in the medullary areas of the thymus. In the peripheral immunologic organs, the immunocompetent cells increased. All these indicated the immunomorphological changes of EIA.

Using histochemical methods to observe the activity and distribution of immunologically comptent cells, it was revealed that the response of the primary immune organs was very active from the beginning of the immunization process. Within 3 months following vaccination the T cells in the peripheral immune organs tend to decrease, but after that a new balance in the proliferation of T cells, B cells, and macrophages appeared in these sites. Simultaneous proliferation of several types of principal immunocompetent cells could be seen in the medullary cord of lymph nodes periphery of the small blood vessels and sinuses of the spleen and persisted for a long time. There was no morphological evidence of immunodeficiency, but instead a type of combined immunological response was formed.

/9365
CSO: 4011/20

NEW COMMITMENT TO SOIL, WATER CONSERVATION ON HUANG HE

Zhengzhou RENMIN HUANGHE [THE PEOPLE'S YELLOW RIVER] in Chinese No 5, 26 Oct 85 pp 11-12

[English abstract of article by Qian Zhengying [6929 2973 5391]]

[Text] The paper is a summarization of the Symposium on Soil and Water Conservation on the Upper and Middle Reaches of the Huang He, with the author's suggestions concerning the present status of the work of soil and water conservation and a few points to be conscientiously dealt with.

The problem of how to check loss of soil and water on the upper and middle reaches of the Huang He is a difficult one, long studied by the Chinese people and well known to people of the whole world. During the past 30-odd years, technical measures have been taken through joint effort of the broad masses and scientific and technical personnel, many of which proved to be successful in experimental plots. But the experiences gathered there have not been popularized and have not yet been a productive force of the community. Three documents promulgated by the state opened up new fields for the work of soil and water conservation on the upper and middle reaches of the Huang He, which in turn provides conditions for readjustment of the structure of production in rural areas. Improvement of small watersheds by households under contracts for soil and water conservation is apt to bring about solution of the former problems of separation of responsibility, power and benefits, and disjunction in management and utilization. Thousands upon thousands of households have been mobilized to take part in improvement of numerous gullies and ravines, greatly expediting the tempo of soil and water conservation work. There has also been substantial development in farm production.

The current problems are that the economic foundation of the related area is still rather frail, and the standard of living and economic capability of the inhabitants in this area lag behind those of the average households and administrations in other parts of the country. There are still places where the people do not yet recognize the importance of soil and water conservation, so that up to the present moment, the key to taking a turn for the better has not yet been grasped by the cadres and the masses. Even in places where improvement of small watersheds by households under contracts has been effected, support and technical assistance may not be adequate. There are places where attention has been paid to construction and development, but not to proper maintenance against possible damages. In developing industries and mining enterprises as also in road building, there are instances where loss of soil and water has been aggravated or pollution caused. In individual cases, the damages even exceed the positive effects of soil and water conservation.

The author expects leading cadres at all levels to conscientiously analyze the local conditions and properly appraise achievements and shortcomings.

The author is of the opinion that improvement of small watersheds should be deeply rooted in the work of soil and water conservation and be given full play, as a step of key importance to the strengthening of soil and water conservation in the days to come. Efforts must not be spared to stop new causes of soil and water loss. It is easier to destruct than to construct. The problem should be dealt with in earnest. Support and services for promoting conservation should be provided, definitely and decisively. Services should be rendered with respect to technological assistance, information and operation. The work of soil and water conservation is now at its turning point. Formerly it was solely improvement, but now it should be improvement plus protection of the work already done. Formerly it was merely related to agricultural measures, but now comprehensive measures--agriculture as well as mining and industries--should be instituted. Instead of just improving the drainage areas, corresponding measures of exploitation should also be taken. While we formerly were preoccupied with production, now we should pay heed to business operations as well. Instead of technical assistance alone, we should render service in all respects. Where work is intensified or covers a large scope, the leading bodies should shoulder responsibilities to adapt to the change, so that soil and water conservation will promote economic development and prosperity.

/9365
CSO: 4011/13

SEVEN RIVERS IN NATIONAL TERRITORY IMPROVEMENT (PART I)

Zhengzhou RENMIN HUANGHE [THE PEOPLE'S YELLOW RIVER] in Chinese No 5, 26 Oct 85 p 17

[English abstract of article by Liu Shanjian [0491 0810 1696]]

[Text] The seven largest rivers of China are the Chang Jiang, Huang He, Zhu Jiang, Hua He, Hai He, Liao He, and Songhua Jiang. The drainage area of these rivers constitutes 45.5 percent of the total area of China, populated by 78.4 percent of all inhabitants in the land, and makes up 82.2 percent of China's total area of cropland. The gross output value of industry and agriculture in these drainage areas comprises 91.2 percent of China's total output value. The seven largest rivers are therefore of much significance to the development of the national economy and exploitation of the nation's resources. The paper deals with the predominance of the areas with respect to natural resources, the present status of exploitation, and future prospects, so as to explain the position and role of the related areas in development and improvement of the national land.

/9365
CSO: 4011/13

SEVEN RIVERS IN NATIONAL TERRITORY IMPROVEMENT (PART II)

Zhengzhou RENMIN HUANGHE [THE PEOPLE'S YELLOW RIVER] in Chinese No 6, 26 Dec 85
pp 9-12

[Article by Liu Shanjian [0491 0810 1696], National Territory Regulation and Improvement Bureau, State Planning Commission]

[Abstract] The article's full title is "Status and Functions of Seven Major Rivers in Regulation and Improvement of the National Territory (Continued)--Current Exploitation Situation and Prospects." The seven major rivers are the Songhua, Liao, Hai, Huai, Zhu, Chang, and Huang. The gross industrial and agricultural products of the seven river basins account for more than 90 percent of the nation's output: one-third each for the Chang Jiang basin and the Huang-Huai-Hai river basins. By an evaluation based on the unit-area of industrial-agricultural products chosen as the general index of land exploitation, the index for the lower reaches of the Chang Jiang are found to be more than 20 times above the national average, while the index for Huai, Hai and Liao basins is four to five times the national average. With its share of industrial products at more than 70 percent of total industrial-agricultural products, the lower Chang Jian, Kiao and Hai basins are industrial areas. Nearly 2,000 water reservoirs of various sizes have been built along the seven major rivers with a total reservoir capacity of 276 billion cubic meters. The highest exploitation of water resources is in the Hai and Huai basins, which bring in some water from the Huang He and the Chang Jiang. Irrigation of less than one-half of the nation's arable land provides two-thirds of the crop. Water power exploitation is limited; only 3.4 percent of the potential along the Chang Jiang (with some 200 gigawatts potential) has been tapped. Silt in rivers has not decreased, although a fourth of water and soil erosion was halted, statistically. Although levees are some 160,000 km in length, the residents can only be protected from the highest flood every 10 or 20 years in the Chang Jiang delta, the middle and lower reaches of the river, the Zhu delta, and the middle and lower reaches of the Liao. At present, protection from the highest flood in a century is feasible along the Huang He but its river bed is raised by silt year after year with rising flood levels with the passage of time. In northern cities, shortages of municipal waters constitute the main restraint on economic growth. Navigation along the mainstream of the Chang Jiang is only 10 percent of the Mississippi navigation, although both rivers have comparable capacity. Pollution is serious since more than 90-percent untreated sewage empties into the major rivers; the total daily discharge amounts to 80 million tons.

10424
CSO: 4011/22

END

JPRS-CAG-86-019

12 MAY 1986

China Report

AGRICULTURE

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-019

12 MAY 1986

CHINA REPORT

AGRICULTURE

CONTENTS

NATIONAL

Agricultural Bank Announces Priorities for 1986
(NONGMIN RIBAO, 30 Jan 86) 1

Interview With Bank Head, Ma Yongwei Interview 1
NONGMIN RIBAO Commentary 3

Domestic Soybean Shortage Expected To Continue
(NONGMIN RIBAO, 1 Feb 86) 4

Rural Drinking Water Improves, Fluorosis 'Under Control'
(Li Bo; NONGMIN RIBAO, 4 Jan 86) 6

Briefs
China Exports Cotton 7
Prices 'Stabilized' 7
Irrigated Farmland Improvement 7
High-Quality Farm Product 7
State Council Allocates Cotton 8

ANHUI

Agricultural Statistics Released for 1985
(ANHUI RIBAO, 27 Mar 86) 9

Government Issues Circular on Afforestation
(ANHUI RIBAO, various dates) 11

Details of Circular 11
Committee Sets Afforestation Tasks 12
Soil Prepared for Afforestation 13

1985 Peasant Income Improves With Second Stage of Reforms
(Zhao Xilong; ANHUI RIBAO, 15 Feb 86)...................... 14

Peasants Swap Subsistence Farming for Profits
(XINHUA, 14 Apr 86).. 15

Briefs
Borrowing Requirements Set 17
Freshwater Fish Breeding Center 17

BEIJING

Ten Results for Beijing Suburb Farm Villages in 1985
(RENMIN RIBAO OVERSEAS EDITION, 26 Jan 86)................. 18

FUJIAN

Briefs
Farm Machines 20

GUANGDONG

Winter Water Conservation Work Progresses Unevenly
(Sun Guohui; NANFANG RIBAO, 7 Jan 86)...................... 21

World Bank's IDA Loans Benefit State Farms
(XINHUA, 21 Apr 86).. 23

HEBEI

S&T Results Bring Animal Husbandry Gains
(HEBEI RIBAO, 28 Jan 86)................................... 24

Banks' Funds Aid Shrimp Breeding Industry
(Chen Yuanliang, Liu Zhanjie; HEBEI RIBAO, 28 Jan 86)...... 26

HEILONGJIANG

State Farm Changes Help Productivity, Employment
(Li Fulai; NONGMIN RIBAO, 20 Jan 86)....................... 27

HENAN

Regulations Set to Lighten Peasants' Burdens
(Henan Provincial Service, 15 Apr 86)...................... 28

JIANGSU

Rural Enterprises Boost Local Agriculture
(XINHUA, 21 Apr 86).. 30

Recycling Improves Provincial Farm Efficiency
(XINHUA, 21 Apr 86).. 31

JIANGXI

Conference Discusses Ways To Expand Livestock Industry
(JIANGXI RIBAO, 4 Jan 86).................................. 32

Harvest Bountiful, Over 3 Billion Jin Grain Shipped
(Peng Chunlan; JIANGXI RIBAO, 2 Jan 86).................... 34

Briefs
Sugar Output High 35

JILIN

Meeting on Animal Husbandry Development Held
(Jilin Provincial Service, 17 Apr 86)...................... 36

NINGXIA

State Intervention in Marketplace Defended
(NINGXIA RIBAO, 19 Jan 86)................................. 38

Assuring Raw Materials, by Jiang Aili 38
NINGXIA RIBAO Commentary 39

Grain Contract Purchases Lowered; Increased Production Urged
(NINGXIA RIBAO, 24 Jan 86)................................. 41

SHAANXI

Briefs
Wheat Field Pests 43

SHANXI

New Method of Grain Procurement To Be Tried
(SHANXI NONGMIN, 28 Jan 86)................................ 44

Cooperative System Should Be Improved, Not Abandoned
(SHANXI NONGMIN, 4 Feb 86)................................. 46

Briefs
Corn Exports 49

SICHUAN

Agricultural Statistics Released for 1985
(SICHUAN RIBAO, 8 Mar 86).................................. 50

Research Provides Gains in Agriculture
(Yang Delong; SICHUAN RIBAO, 26 Jan 86).................... 52

XIZANG

Briefs
More Fresh Vegetables Available 54

YUNNAN

Agricultural Statistics Released for 1985
(YUNNAN RIBAO, 5 Apr 86)...................................... 55

Briefs
Fertilizer Sales 57

ABSTRACTS

PLANT PROTECTION

ZHIWU BAOHU [PLANT PROTECTION] No 6, 8 Dec 85..................... 58

HONG KONG

Canned Food Market in Hong Kong 'Tremendous'
(NONGMIN RIBAO, 1 Feb 86)...................................... 60

AGRICULTURAL BANK ANNOUNCES PRIORITIES FOR 1986

Interview with Bank Head

Beijing NONGMIN RIBAO in Chinese 30 Jan 86 p 2

[Interview of Ma Yongwei [7456 3057 0251], director of the China Agricultural Bank by NONGMIN RIBAO: "Agricultural Credit in 1986 Will Be Directed Toward Key Points, Supporting the Structural Adjustment of Production and the Transformation of Agricultural Technology"; Date and Place Not Given]

[Text] [Question] What tasks are faced in rural credit work?

[Answer] During 1986, the state's tight control over the scale of credit and over monetary policy will not be substantially loosened. We will continue to exercise tight control of funds, and will insure reasonable supply. The fundamental solution to the problem of demand for funds exceeding supply is the organization of short-term loan funds to facilitate the turnover of funds.

[Question] What are the main points of direction for rural credit this year?

[Answer] In 1986, in order to plan for the direction and amount of investment in rural credit funds, we must first ensure that the funding needs for grain production are met. The proportion of loans directed to forestry, animal husbandry, and fishing should also be raised appropriately. Credit cooperative loans should first be used to ensure planting and cultivation. Each locality can stipulate a set proportion of loans for credit cooperatives to release for planting and cultivation. The mistaken policy of extending loans for "building rich households" should be firmly corrected. Once grain production is ensured, then there should be active support of operational diversification, assisting the coordinated development of the primary industries of agriculture, forestry, animal husbandry, and aquaculture, the secondary industries of construction and mining, and the tertiary industries of commerce, transportation, and other services. Loans for forestry should adhere to the principle of "nurture from short to tall." Emphasis should be placed on supporting the young forest, developing forests that are rich producers, economic producers, and fruit producers. Loans for animal husbandry should emphasize support of improving the grasslands in grazing districts, developing breeds of improved animal varieties, expanding the stock of lean-meat hogs, of dairy cows that can also supply meat, and of sheep that can supply meat, milk, and wool. Loans for aquaculture should emphasize support of developing shallow-water cultivation in the interior where conditions permit, and support of seawater cultivation in the coastal districts of, primarily, shrimp, crabs, and highly prized fish. Support should be directed at helping agriculture earn foreign exchange. Support should also be directed at strengthening the systems of pre- and post-production services.

[Question] What is the direction this year for rural industry credit?

[Answer] Rural industry credit should adhere to the principal policies of "actively supporting, reasonably planning, correctly leading, and improving managing." First, control. Second, support. "Controlled support" should be implemented. After making distinctions according to location and projects, support should be given according to conditions and goals. Using primarily loans of circulating funds, emphasis should be placed on assisting enterprises to improve their technology and supporting the agricultural and sideline processing industries, and the construction materials, mining, transportation, and shipping industries. Loans for production equipment should be strictly controlled. Construction projects that have been halted or slowed down should be examined in a reevaluation of construction project priorities. The Agriculture Bank has already promised loans to those projects whose timetable is short, investment is small, results will be quickly evident, and economic returns will be good. We will do all that we can to provide support. We also should pay particular attention to the technical transformation of rural industries. Funds should be properly arranged to help advance the implementation of the state's "spark plan."

[Question] This year what new changes will there be in credit for assisting poor areas and commerce?

[Answer] In 1986, the Agriculture Bank should gladly help poor districts expand commercial production and transform their situation. Beginning this year and extending to 1990, the main bank will allocate 300 million yuan from increases in new credit levels to be used in key production projects that will help promote that transformation in over 10 districts of concentrated poverty. In those cases of old debts in arrears, payments can be rescheduled if there truly are insufficient resources for timely repayment. The ratio of savings that credit cooperatives in poor areas must turn over to the Agriculture Bank as reserve funds can be appropriately reduced. Commercial credit should support rural cooperative commerce, whose principal institution is the supply and marketing cooperative. It should assist peasants in processing agricultural products, savings, and marketing, all serving the expansion of diversified operations.

In conclusion, this year credit work should implement the principles of making distinctions. In the opened areas, special economic zones, and border areas, the main emphasis should be in helping expand agricultural products that earn foreign exchange. In the interior, support should be given to the steady increase in production of grain and other important products.

NONGMIN RIBAO Commentary

Beijing NONGMIN RIBAO in Chinese 30 Jan 86 p 2

[Text] Bank credit is an important means of state control and of adjustment of the national economy. This year, the state will not substantially relax its tight control of credit and monetary policy. Yet the expansion of agricultural commercial production asks that the Agriculture Bank provide large amounts of financial support. This situation means that the contradiction between supply and demand in rural funds will remain acute. The state cannot be relied upon to increase loans to solve this contradiction. The only solution is to depend on the bank itself to attract savings and to circulate funds.

The institutional tasks of the Agriculture Bank are to actively expand its sources of funds, to get the most out of present funds, and to strengthen the adjustment of fund circulation. One-half of the Agriculture Bank's deposits are deposits that have been transferred from credit cooperatives. After the reform of the cooperatives, permitting them to fully utilize their own funds, the bank is not able to issue standards that have the weight of orders for credit cooperatives to transfer their deposits to the bank. The bank also cannot depend again for its existence on the deposits from credit cooperatives. It must attract its own deposits and increase the rate of turnover of its funds. In this respect, the Agriculture Bank has a wide field of operation. In recent years, the peasants' income has increased substantially. The cash reserves of rural enterprises and units commonly exceeds quotas. The potential is great if the bank improves management, expands deposits, and gets the most out of its funds. There is over 200 billion yuan in outstanding loans from the Agriculture Bank and the credit cooperatives. If the rate of turnover can be increased slightly, it would make newly available several billion yuan, or even 10 billion yuan. Of this 200 billion yuan in outstanding loans, there is a substantial portion that is in arrears. If effort is paid to freeing up those funds, the funds can then play an important role in the future.

In getting the most out of funds, there should be increased expansion of savings agencies and of the forms of savings deposits. Deposits that combine savings and loans should be promoted. The issuance of bonds should be improved. Time deposit savings at local level banks could receive appropriate subsidy from higher level banks. Management of currency should also be improved. All kinds of inspection and review of loans should be performed well, preventing problems of loans sinking down and money disappearing. Increased interest and other economic measures should be used against those who have money but refuse to repay. These actions will ensure that credit work is systematized and standardized, and will truly meet rural needs for funds.

12994/9190
CSO: 4007/289

DOMESTIC SOYBEAN SHORTAGE EXPECTED TO CONTINUE

Beijing NONGMIN RIBAO in Chinese 1 Feb 86 p 2

[Article: "No Relief in Sight for China's Soybean Shortage"]

[Text] Since 1984, domestic supplies of soybeans on the market have been tight and prices have risen. Supply has not met demand in many places. Last year, the shortfall in supply grew worse, leading to the retail price of soybeans climbing 16 to 17 percent higher than prices in the same periods in 1984. The reasons for such a large difference between supply and demand are as follows:

1. In recent years, the increase in soybean production has not corresponded with demand. In the early years after the liberation, China was the world leader in soybean production. In the latter years of the 1960's, the area planted in soybeans gradually shrank, and total production dropped severely. Although in 1984 the structure of cropping patterns was adjusted, the amount increased was not large and still fell short of the highest historical levels.

2. Following the expansion of the soybean-processing industry, the total industrial consumption of soybeans has increased substantially. Soybeans are a high-protein, low-fat food product which has received much attention in recent years. At present, China's production of soybean products has already expanded from a few products to several dozen. The expansion of the food-processing industry has significantly increased the demand for soybeans.

3. The production of bean curd and oil in soybean-producing areas is an excellent way for peasants to become wealthy. At present, in every system bean curd plants and oil presses, and other traditional family industrial and sideline industries have appeared in large numbers. As the quantity of soybeans consumed locally has increased, the quantity shipped out has decreased.

4. Soybeans at present have become one of the bestselling agricultural products on the world market, and the quantity exported has gradually increased.

According to the surveys and estimates of pertinent departments, China's per capita demand for soybeans will increase from 18.5 jin, the level in 1983, to 26.7 jin, in 1990. The total annual demand will exceed 28 billion jin. Beginning in 1985, annual production must increase by 1.6 billion jin if approximately 92 percent of demand is to be met. From this it can be seen that as the scope of uses for soybeans expands in industrial production and elsewhere, and as the quantity of exports increases, the contradiction between supply and demand will grow even worse. The problem of prices rising when goods are scarce cannot be eliminated in the short term. It is hoped that pertinent departments take notice.

12994/9190
CSO: 4007/289

RURAL DRINKING WATER IMPROVES, FLUOROSIS 'UNDER CONTROL'

Beijing NONGMIN RIBAO in Chinese 4 Jan 86 p 1

[Article by Li Bo [2621 2672]: "Participating in the 10 Years of Activity of 'International Drinking Water Supply and Sanitation,' the Country's Rural Drinking Water Situation Improves; Water Supply for More than 200 Cities Is Centralized; Running-Water Distribution Reaches 85 Percent"]

[Text] This reporter has recently learned from relevant departments that our participation in the 10 year's activities (1981-1990) of the "International Drinking Water Supply and Sanitation" has already achieved preliminary results, and the rural drinking water situation has had a comparatively large improvement. Currently, 221 of the nation's 247 cities have established centralized water supply systems, and the distribution of running water in cities is over 85 percent. The population enjoying drinking water benefits in farm villages has also speedily risen to 320 million, taking up to 40 percent of the farm village population. There are also 12 to 15 percent of the farm village masses that have running water. The running-water distribution has already reached 40 to 70 percent in the farm villages in the focal counties of the provinces and municipalities of Beijing, Shanxi, Zhejiang, Guangdong, Jiangsu, and Sichuan, where construction of running-water facilities has been more rapid. Hebei Province has more than 40 counties where, after undertaking water treatment over a wide area, over 80 percent of the population consumes pure and hygienic water. The rate of illness from infectious intestinal diseases in districts with treated water dropped 80 percent. By treating and fluoridating water in northern districts, 2 million people already consume water treated with small amounts of fluoride, which is more than triple that of 1979. The medical condition of fluorine poisoning [8636 7539 4017] cases suffered in districts with treated water has improved to some degree, and the appearance of new cases is already under control.

13152/13046
CSO: 4007/284

BRIEFS

CHINA EXPORTS COTTON--Beijing, April 18 (XINHUA)--China exported 320,000 tons of cotton in 1985, four times the figure for 1984, according to China's Ministry of Agriculture, Animal Husbandry and Fisheries. China began to export cotton in 1983. In the previous three decades, it had imported 300,000 to 400,000 tons of cotton every year. [Text] [Beijing XINHUA in English 1618 GMT 18 Apr 86 OW] /12712

PRICES 'STABILIZED'--Beijing, April 17 (XINHUA)--Staple food prices have been stabilized at the levels of December 1985, following a sharp rise after the lifting of state control on them in the cities, the State Statistics Bureau announced here today. In the first three months of this year, pork, eggs and vegetable prices fluctuated by small margins. The price of eggs went down by 0.4 yuan per kg in most cities. The retail sales prices increased about eight percent in the first quarter of this year, compared with the same 1985 period. The state administration of commodity prices expects more output of vegetables and pork this year, saying that the enthusiasm of farmers has been aroused for vegetable growing by the price reform and more pigs are being raised than last year. [Text] [Beijing XINHUA in English 1910 GMT 17 Apr 86 OW] /12712

IRRIGATED FARMLAND IMPROVEMENT--Beijing, 17 Apr (XINHUA)--Peasants have added and improved 800,000 hectares of irrigated farmland since last winter to reap a better harvest this year, the PEASANTS' DAILY reported today. In addition, they have added and improved nearly 200,000 hectares able to withstand waterlogging threats. The newspaper said: "New irrigation and drainage facilities help ensure a successful spring sowing and ploughing." In all, 39 million peasants throughout the country were involved in the farmland capital construction drive, the paper said. Altogether, 1.9 billion cubic meters of earth and stone work has been done since last winter, about half the total done between 1981 and 1984. [Text] [Beijing XINHUA in English 1117 GMT 17 Apr 86 OW] /8918

HIGH-QUALITY FARM PRODUCT--Beijing, April 21 (XINHUA)--China will build high quality agricultural product centers in 113 counties in the next 5 years in a bid to promote exports. According to an agreement signed by the Ministry of Agriculture, animal husbandry and fisheries with 27 provincial governments, more than 270 million yuan of investment will be made in 3 years to build up the centers producing rice, wheat, corn, bean, fruit, famous tea, vegetables and flowers. The central authorities will invest 120 million yuan while local authorities will put in 150 million yuan. [Text] [Beijing XINHUA in English 0900 GMT 21 Apr 86 OW] /8918

STATE COUNCIL ALLOCATES COTTON--According to a report by ZHONGGUO SHANGYE BAO, the State Council has recently decided to allocate an additional 50,000 metric tons of cotton for wadding and 250 million meters of cotton cloth for sale on credit to people in impoverished areas, who are in need of clothes and quilts. The Commerce Ministry, the People's Bank of China, the Finance Ministry, and the Civil Affairs Ministry issued a joint circular on the credit sale of cotton and cloth. The circular says: Priority in the credit sale should be given to the most impoverished areas where the problems of food and clothing have not been solved yet, and areas and farm households unable to purchase cotton and cloth in the two previous credit sales, especially poverty-stricken families in the Yimeng Shan, Jinggang Shan, and Yanan areas. Areas included in the previous two credit sales will be excluded from the latest sale. The circular says: The standard amount of the credit sale should average 2 kilograms of cotton for wadding and 10 meters of cotton cloth per person. Grassroots supply and marketing cooperatives and stores should deliver the cotton and cloth to the old and sick. [Text] [Beijing Domestic Service in Mandarin 2230 GMT 3 Feb 86 OW] /12712

CSO: 4007/375

ANHUI

AGRICULTURAL STATISTICS RELEASED FOR 1985

Hefei ANHUI RIBAO in Chinese 27 Mar 86 p 3

[Excerpts] In 1985, the estimated social output value in rural Anhui was 27.782 billion yuan, a 24.9 percent increase over 1984. Of this, the output value of industry, construction, commerce, and transportation was 7.958 billion yuan a 31.7 percent increase; its proportion increased from 27.2 percent in 1984 to 28.6 percent.

The gross agricultural output value was 18.323 billion yuan (including village-run industries) an 18 percent increase over 1984, exceeding the planned target of 7.4 percent growth. The proportion of forestry, animal husbandry, sideline and fishery industry increased from 32.3 percent in 1984 to 38.1 percent. If the output value of village industry is deducted from this sum, the figure is 15.135 billion yuan, an 11.2 percent increase over 1984.

In 1985, the area sown to grain declined by 294,000 hectares, gross output was 21,679,000 [as printed; 2,679,600 appears below] tons, a 346,000 reduction over 1984.

Output of major agricultural products:

	1985 (10,000 tons)	Increase in 1985 over 1984 percent
Grain	276.96	-1.6
Cotton	16.67	-28.7
Oil-bearing Crops	145.70	49.9
Peanuts	24.15	34.0
Rapeseeds	107.93	51.9
Sesame	13.28	71.9
Sugarcane	8.27	130
Jute, Ambari Hemp	97.63	260
Flue-cured Tobacco	7.60	-0.6
Silk Cocoons	9.023 tons	26.2
Tea	42,533 tons	-1.1
Fruit	13.94 (10,000 tons)	10.7

The province afforested 138,200 hectares in 1985, a 5.8 percent increase over 1984.

Output of major animal by-products and number of livestock:

	1985		Increase in 1985 over 1984 percent
Output of Pork, Beef, and Mutton	71.39	(10,000 tons)	22.9
Pork Output	66.90		22.5
Beef Output	2.51		49.1
Mutton Output	1.98		10.0
Milk	18,482	tons	25.4
Sheep Wool	1,123	tons	-27.8
Hogs Slaughtered	879.01	(10,000 head)	18.7
Pigs at Year End	1,241.24		9.2
Large Animals at Year End	450.94		9.0
Sheep at Year End	215.52		1.9

The output of aquatic products was 165,000 tons in 1985, a 18.7 percent increase over 1984.

At the end of 1985, the aggregate power capacity of the province's farm machines was 11,330,000 horsepower, a 4.5 percent increase over 1984. The number of large and medium-sized tractors was 15,938; the number of small capacity and walking tractors was 233,900, a 13 percent increase over 1984; trucks 14,566, a 17.5 percent increase; and irrigation and drainage equipment 3,464,800 horsepower, a 7.2 percent decrease over 1984. The consumption of electricity in rural areas was 1.350 billion kwh, a 2.3 percent increase. A total of 1,136,000 tons of chemical fertilizer were applied, a 13.3 percent increase over 1984.

/12232
CSO: 4007/370

GOVERNMENT ISSUES CIRCULAR ON AFFORESTATION

Details of Circular

Hefei ANHUI RIBAO in Chinese 2 Feb 86 p 1

[Text] The Anhui People's Government on 30 January issued a circular requiring all areas to carefully organize and undertake the task of afforestation as that season approaches so that this year the afforestation activities will be more substantial and the effects more significant than in the past.

To gradually perfect the responsibility system in regard to afforestation, state enterprises, collectives, and individuals must proceed together in hand planting, sealing off hillsides to facilitate afforestation, and sowing by air. The duty of afforestation must gradually fall into the hands of responsibility households and units, and contracts must be signed to clarify duties, rights, benefits, bonuses, and penalties. Emphasis must be placed on aiding responsibility households who have large tracts of barren land, consolidating the results of afforestation, replanting, nurturing, and employing a variety of managerial styles. New households must be attracted to contract afforestation and their strengths exploited to produce practical results. Those areas still lacking responsibility systems must make efforts to set them up and quickly make those areas green.

To advance the rational reorganization of the forestry structure, trees must be cultivated based on suitability to local conditions. Both the southern and western mountain regions of Anhui should increase the proportion of commercial forests and afforestation areas geared toward water conservation as well as expand the mountain areas sealed off for forest cultivation and speed up the transformation of farmlands into forests. In the Jiangzhun Hills, emphasis should be placed on increasing the area for commercial and fuel forests and on accelerating the transformation of low-yielding woods. The areas surrounding cities and towns must be made greener. Small fir, phoenix, bamboo, fruits, medicinal sources, mulberry, and seedling nurseries must be developed. [Along river embankments there should be afforestation to prevent erosion and protect fields and river networks.) Large areas of lake beaches must be transformed from farmland into forests, and water firs must be established as the main component in the development of forestry in river and lake regions. In the Zhunbei plains area, an integrated system with high standards must be set up to protect forests; commercial wood and fruit groves must also be developed. Villages must enhance greenness through increasing the level of plant cultivation.

The task of seedling cultivation must be tackled. Those counties responsible for fast-growing, high-yielding forests must establish a corresponding seed-collection base and a core of sapling nurseries. Areas for seed selection and the transference of seeds to nurseries should be set down in written agreements for contracted production and sales. Aid must be extended to specialized households engaged in sapling nurseries in the form of sales assistance and other services.

Quality regulations for forest establishment must be strictly adhered to. Plans must be thoroughly investigated and supervisory checks prior to their acceptance must be strengthened. Those engaging in fast-growing, high-yield forest development must meet the requirements for mature forests and mature timber; mountainous areas sealed off for forest cultivation and mountainous areas being sown by air must choose realistic managerial measures that protect humans and animals from harm. At the appropriate time, medium-aged and young trees must be selectively cut as part of the tending process, and preventive measures to protect forests from viruses must be enhanced.

The circular emphasizes that each place and department absolutely must delegate to specialists the responsibility for planting trees and developing forests; they also must organize cadres to be contracted to handle particular tasks in order to guarantee the effectiveness of afforestation. While forests are being established, medium and small cities must utilize open space for plant cultivation. Anhui has declared that 20 February to 20 March be designated the month for a concerted assault to plant trees and develop forests. Activities must be organized for several such assaults, for no time can be lost in fulfilling this year's tree-planting task.

Committee Sets Afforestation Tasks

Hefei ANHUI RIBAO in Chinese 31 Jan 86 p 1

[Text] On the afternoon of 25 January, the chairman of the provincial afforestation committee, Meng Fulin [1322 1381 2651], presided over the opening of the sixth plenum of the afforestation committee conference, which is to arrange this year's afforestation tasks. All areas are required to strengthen their leadership, be stubbornly persistent, stick to and push the reforms, extensively mobilize the masses, and do a sound job so that the year's afforestation tasks can be completed or surpassed.

The committee set out the year's afforestation plan as follows: 1.55 million mu of land are to be afforested and 1.5 million mu in mountain regions are to be sealed off for forest cultivation; 1.3 million mu of mature forest are to be nutured and 220,000 mu will be used for sapling cultivation. Two hundred million trees will be planted and volunteer tree-planting will involve the planting of 103 million trees. The committee demands that each area consider the afforestation task to be an important aspect of reorganizing the production structure. This new year will see new records set and mountains, rivers, and fields will be equally stressed in the plan. The tree planting must be carried out in a workable way and that includes the tasks of afforestation, field selection, format, and the responsibility system. The forestry industry must continue to be reformed and the internal structure of the forestry industry must be reorganized. Emphasis must be placed on developing commercial and fuel forests and the simultaneous cultivation of trees, flowers, and grasses must be integrated in the short and long run. At the same time, timber processing must advance as should its integrated utilization so as to bring forth an increase in the income derived from agriculture and forestry. Outlays for afforestation must be reimbursed and extra support must be extended to poorer areas. Forestry and forest worker units must in accordance with the plan provide information, seeds and saplings, technical assistance, and lumber-distribution services. Guidance must be given to the various categories and stress must be laid on tree planting in the Chang Jiang and Huai He areas and in barren mountain regions; cities must be made greener. All departments should work hard to coordinate their forces to bolster the greenery around railroads, public highways, waterways, warehouses, factories, and mines.

In principle, the conference committee approved "The Proposal To Improve Greenery Around Public Highways."

Soil Prepared for Afforestation

Hefei ANHUI RIBAO in Chinese 30 Jan 86 p 1

[Excerpt] Since the onset of winter, many areas of Anhui have actively begun to prepare the soil for afforestation. According to incomplete statistics, as of 25 February, 541,6000 mu of land was prepared for afforestation, which is about 35.7 percent of the total planned. Lands to be utilized for fast-growth, high-yielding woods accounted for 176,000 mu, which is 58.7 percent of the planned total.

13030/13046
CSO: 4007/288

ANHUI

1985 PEASANT INCOME IMPROVES WITH SECOND STAGE OF REFORMS

Hefei ANHUI RIBAO in Chinese 15 Feb 86 p 1

[Article by Zhao Xilong [6392 1585 7893]: "Rural Enterprises, Management Variety, Town Construction Developing Quickly; Last Year Peasant Income Averages 369 Yuan Per Capita"]

[Text] The second stage of reforms has brought steady growth in income for peasants in numerous regions of Anhui Province. According to statistics of the provincial rural survey team, Anhui has already reached the goal set out by Comrade Hu Yaobang in 1982 during his visit to Anhui: that by the end of 1985 peasants earning 200, 300, 400, or 500 yuan per year would in each case comprise about one-fourth the total and that the average per capita income would be 350 yuan. Last year the average per capita income for peasants was 369 yuan, an increase of 46 yuan, or 14.2 percent over last year. Those households earning 200 to 500 yuan and just making ends meet comprised 77.5 percent of the total; those comfortable households earning between 500 to 1,000 yuan per year accounted for 12.3 percent, and those comparatively well-off households earning more than 1,000 yuan comprised 0.3 percent of the total.

Increased income for farmers has brought with it increased buying power and an improvement in daily life. According to research, last year the average peasant spent 299 yuan on the cost of living, an increase of 13.6 percent over the previous year. Half the families own a bicycle and one-third a sewing machine. Farm households possessing a television, radio, refrigerator, washing machine, and camera grew in batches. Farm dwellings built out of brick or wood accounted for about one-half the total while the average living space per capita reached 13.2 square meters.

These are the outcome of the second stage of rural reforms. The reforms of the sales and distribution systems of agricultural commodities and the reorganization of the rural production structure have guaranteed that grain production and sales achieve basic stability. At the same time, there has been startling progress among rural enterprises, in village and town construction, and in managerial variety. The structure of farm income has undergone a very clear change. Regarding crop cultivation, the proportion of grain income has fallen and cash-crop income has increased; forestry, livestock, byproduct, and fishing industries have risen in proportion to ordinary agricultural activities, which have fallen. As a proportion of the overall production output value in rural villages, income from industry, commerce, shipping, construction, and service industries has increased significantly. Anhui's rural commercial economy is developing in the right direction.

13030/13046
CSO: 4007/288

PEASANTS SWAP SUBSISTENCE FARMING FOR PROFITS

OW141158 Beijing XINHUA in English 0703 GMT 14 Apr 86

[Text] Hefei, April 14 (XINHUA correspondent Xuan Fenghua)--There are indicators to a gradual process in which the traditional farming economy is replaced by a market-oriented economy in East China's Anhui Province.

These include:

--The value of farm products offered by peasants to the market jumped 40 percent last year.

This means that they no longer produce solely for their own subsistence as in the past.

--While ensuring grain production, peasants are growing more fruit trees and cash crops, such as jute, hemp and sugar cane and breeding silkworm, livestock and fish.

As a result, the province's meat output last year was up 23 percent at 710,000 tons. And rural output value totalled 27.78 billion yuan, a 25 percent growth, compared to 15.6 percent for the entire nation.

--About 3.3 million peasants, or 23.5 percent of the province's rural workforce, have left the fields to work in township-run factories. Another 690,000 are engaged in transport.

The provincial authorities expect a total of 10 million peasants to have switched to non-farming jobs by 2000.

--The number of collectively- or individually-run rural factories and workshops processing farm produce doubled last year to 740,000.

The rise of the commodity economy has so far caused 3,000 rural townships to spring up all over the province.

Officials attribute the changes to the rural reforms including the abolition of the mandatory state farm product purchase system and the lifting of state control over non-staple food prices.

In addition to village fairs everywhere in the countryside, Anhui now has scores of special markets at which business people from across China and overseas can conduct wholesale or retail trade with local peasants.

These markets specialize in goods such as traditional Chinese medicinal materials, bamboo articles, cattle and oil-bearing seeds.

/12712
CSO: 4020/288

BRIEFS

BORROWING REQUIREMENTS SET--The extension of 1986 agricultural credits has already begun in Anhui. Loan policies for individual peasants or household groups purchasing powered vehicles and boats and large or medium-sized tractors will still follow the regulations set out by the Chinese Agriculture Bank in its 1984 publication of Document No 184. Borrowers must meet the following conditions: 1. Authorization from the production brigade or from the peasants' committee. Approval must also be obtained from the industry and commerce administrative management department of the county or municipality. 2. The source of the intended purchase of powered vehicle or boat or tractor must be identified. There must be legitimate fuel supplies. No credit will be extended for purchase of vehicles, boats, or tractors that are obsolete, scrapped, or whose fuel consumption exceeds permitted standards. 3. The ability to operate the vehicles, boats, or tractors while in transport must be shown. Drivers must pass the stipulated tests and obtain the proper licenses. 4. Those vehicles, boats, and tractors that will be used for transport must obtain insurance from the China People's Insurance Corp. 5. Borrowers must contribute at least 50 percent of the total purchase price from their own resources. 6. Borrowers must be able to repay the loan and have collateral. Generally, the term of the loan will be 1 year. At most, the term cannot exceed 2 years. [Text] [Beijing ZHONGGUO NONGJIHUA BAO in Chinese 29 Jan 86 p 3] 12994/13046

FRESHWATER FISH BREEDING CENTER--Hefei, April 18 (XINHUA)--Anhui Province in east China will become a freshwater fish breeding center during the Seventh Five-Year Plan (1986-1990), a local official said today. By 1990, fish production will be 350,000 tons, double the figure for 1985, of which about 5,500 tons will be exported. A total of 100 million yuan will be invested in the construction. The funds will come from the state, the province and foreign investment. Planned projects include a research and education center in the provincial capital of Hefei, 20 fish shops with a total storage capacity of 3,000 tons, eight breeding or processing factories, 100 feed factories with a combined annual capacity of 200,000 tons, six breeding farms and a fish disease prevention network. Farmers may contract to use reservoirs and ponds for fish raising for up to 15 years. Techniques such as intensive culture, artificial breeding and net box raising, will be introduced and natural resources will be better protected. [Text] [Beijing XINHUA in English 1127 GMT 18 Apr 86 OW] /8918

CSO: 4020/290

TEN RESULTS FOR BEIJING SUBURB FARM VILLAGES IN 1985

Beijing RENMIN RIBAO OVERSEAS EDITION in Chinese 26 Jan 86 p 1

[Unattributed article: "Last Year Capital Suburb Farm Villages Achieved 10 Major Results; Industry and Farm Gross Production Value in Excess of 7.7 Billion; Contribution to Nation Increases; Commodity Production Circulation Gets Better and Better; Farmer Standard of Living Rises Steadily"; portions within slant lines in boldface]

[Text] According to a BEIJING RIBAO report, farmer standard of living in Beijing suburb farm villages, which are in the front ranks of reform, has risen gradually; commodity production and circulation is ever livelier, and collective incomes and contributions to the nation have grown side by side under the precondition that agricultural growth continue and be steady, and that industrial sideline industries be primary in the across-the-board development of diversified economies. Ten major results were achieved in 1985 by Beijing farm villages.

The 10 major results are:

/1. Sixth 5-Year Plan Quota Exceeded./ Last year's Beijing farm village industrial and gross production values reached 7.73 billion yuan, a 22-percent increase over last year and realizing the goal of doubling in 5 years. With a 70,000-mu reduction over last year, total grain production still reached 4,393,000,000 jin, an increase of 1 percent.

/2. Gross and Net Income for Farm Village Economies and Taxes Accumulated and Paid Over to the State Increase Side by Side./ Gross 1985 income was 8.77 billion yuan, a 25.8-percent increase over last year, and 430 million yuan in taxes were turned over to the state, an increase of 41.8 percent. The capital's suburbs have for the most part eliminated poor villages of less than 200 yuan per capita.

/3. Rural Commerce Develops Steadily./ Over the year, more than 1,700 new enterprises were added. The total number of enterprises was raised to 16,000, and 750,000 personnel were employed.

/4. Agricultural Byproducts Exhibit a Favorable Trend in Multichannel and Direct Circulation./ Supply links were established for 2,000 units for the suburbs and across the municipality, with sales reaching 200 million yuan.

/5. Suburban Tertiary Industries Develop Further./ Last year, there were 19,519 newly added commercial network outlets in farm villages. The total number of network outlets rose to 85,354, and nearly 346,000 personnel were employed.

/6. Foreign Economics and Foreign Trade Achievements Are Obvious./ Forty-three joint ventures have already been established in the suburbs, with an investment reaching $190 million. A group of joint-venture-run hostels, restaurants, fast-food shops, and so on have already been or soon will be put into construction.

/7. Reforestation Moves Up a Notch./ A total of 409,200 mu of barren hills were reforested last year, which exceeded the plan.

/8. Scientific Research and Education Achieve New Progress./ Eighty-two agricultural scientific research projects were gotten for the whole year, among which there were 13 major scientific achievements. Economic benefits reached 100 million.

/9. Outstanding Completion of Main Economic Targets of the Various Bureaus of Agricultural Outlets (Main Offices)./ Every system can realize a profit for the whole year of 135 million yuan, an increase over last year of 24 percent.

/10. Spiritual Civilization Construction Exhibits a New Atmosphere./ After adjustment, the leadership groups of every county and prefecture have been even more revolutionary, young, intellectual, and professional. Public order has taken an obvious turn for the better.

13152/13046
CSO: 4007/286

FUJIAN

BRIEFS

FARM MACHINES--During the 6th 5-Year Plan, farm mechanization developed rapidly in Fujian. As of the end of 1985, the aggregate power capacity of Fujian's farm machines was more than 5,440,000 horsepower, an increase of 2,180,000 horsepower over 1980, the annual average increase was 10.8 percent. The total original value of farm machines was more than 1.20 billion yuan.. [Excerpts] [Beijing ZHONGGUO NONGJIHUA BAO in Chinese 6 Apr 86 p 1]

CSO: 4007/379

GUANGDONG

WINTER WATER CONSERVATION WORK PROGRESSES UNEVENLY

Guangzhou NANFANG RIBAO in Chinese 7 Jan 86 p 1

[Article by Sun Guohui [1327 0948 1920]: "Improve Agricultural Production Conditions; Preserve Agriculture's Steady Growth; 1-Million-Strong Irrigation Work Force Moves onto Construction Sites Across the Province; Construction Started on More Than 10,000 Irrigation Projects; More Than 8,000 Projects Already Completed; More Than 21 Million Cubic Meters in Stonework Finished; 110,000 Mu in Irrigated Area Improved"]

[Text] The province's great expanse of cadres and masses are in the midst of firmly getting a grip on the favorable opportunity of the agricultural slack season to launch large-scale winter repair activities on irrigation works. According to incomplete statistics from the middle of last December, the number of people on irrigation worksites across the province already exceeds 1 million. Construction has begun on more than 10,000 irrigation projects and 8,000 projects are already completed. More than 20 million cubic meters in earthworks and 1.31 million in stoneworks have been finished. An irrigated area of 110,000 mu has been improved. This has been the best year in winter repair activities in the 1980's.

Over the past 30 plus years, the province's building and repairing of irrigation facilities has played a major role in preventing drought and waterlogging. However, standards for many project were low and integration substandard, which makes it impossible to bring their utility into full play. In addition, because of natural aging, poor management, manmade damage, and other reasons, the utility of some projects has diminished. For this reason, all localities shifted the winter season irrigation construction focus to the direction of strengthening and developing the utility of existing irrigation projects. Before fall, irrigation departments at all levels will organize irrigation work inspections with participation by leadership, technical, and management cadres, clarify the situation, and arrange for construction projects. Various localities, on the basis of major irrigation work inspections in previous times, are to get a handle on the points of emphasis, and carry out administration. Strictly seize the restoration of the post-disaster flood-damaged projects in Zhaoqing, Maoming, and Zhanjiang. Stress reinforcement of the retaining dikes of Foshan and Jiangmen. The main thing that has to be done in Meixian Prefecture is the management of projects for silt loss. In dangerous projects, get a firm grip on maintenance and integration, and ensure safety when crossing floods. Based on problems that have been exposed over these several years in irrigation construction practice and drought- and flood-disaster prevention in the localities of Hainan, Guangzhou, and the self-governing region of the Li and Miao nationalities in Hainan, do a lot of clearing of silt from drains, repairing the drainage system, and working hard at restoring and expanding utility. In the prefectures and cities of Shaoguan, Huiyang, Shantou, and elsewhere, put the stress on the utility of existing irrigation projects that can be strengthened and developed on the principle that construction benefits be realized in the same year; cut down on some originally planned new projects; do a lot of small-scale irrigation works; and concentrate funds and materials for use on projects whose benefits can be realized in the same year.

In irrigation construction, various localities are to pay attention to putting into practice policies of individual incentive, mutual benefit, and exchange of equal value in order to suit the diversified production responsibility system's new circumstances. Spread practice of the principle that those who enjoy the benefits bear the burden. The greater the utility, then the greater the burden; the less the utility, then the less the burden. Determine the labor to be provided for earthenwork duties by ratio and share. Because of this, winter repairs of irrigation works in various places exhibited the favorable appearance of fast action and good quality.

However, in terms of the whole province, winter irrigation repair work has developed unevenly. One-third of the prefectures and cities moved rather slowly. Some districts and townships have yet to get started. If not grasped firmly, the opportunity will be lost.

13152/13046
CSO: 4007/284

WORLD BANK'S IDA LOANS BENEFIT STATE FARMS

OW210738 Beijing XINHUA in English 0630 GMT 21 Apr 86

[Text] Guangzhou, April 21 (XINHUA)--State farms in Guangdong Province have renewed 31,000 hectares of rubber trees and reafforested nearly 10,000 hectares with other trees, thanks to loans provided by the International Development Association (IDA) of the World Bank.

In addition, state farms there have set up centers for cultivating fine strains of sugarcane, fruits and medicinal herbs.

Local officials said that in the last 2 years they have completed 77.3 percent of the tasks designated for 5 years.

Officials from the World Bank expressed satisfaction with the renewal project when they visited the farms last month.

Guangdong has planted 293,000 hectares of rubber trees on Hainan Island and the Leizhou peninsula after reclaiming waste land. But the 60,000 hectares of rubber trees planted in the 1950's are low-yielding because of poor strains and outdated infrastructure facilities.

The IDA and China signed an agreement on renewing 40,000 hectares of rubber trees and reafforested 12,000 hectares with other trees in January 1984.

The overall project also included building residential facilities, rubber mills, timber mills, power stations, bridges and highways.

According to the agreement, the IDA is providing U.S. $100 million in interest-free loans for the 65 state farms in Guangdong while China is investing 345 million yuan over 5 years.

China also signed an agreement with the IDA last May on setting up centers to cultivate fine crop strains. Since January this year, Guangdong has designated 630 hectares of land to cultivate fine strains of sugarcane, tropical and subtropical fruits, and medicinal herbs.

/8918
CSO: 4020/290

S&T RESULTS BRING ANIMAL HUSBANDRY GAINS

Shijiazhuang HEBEI RIBAO in Chinese 28 Jan 86 p 1

[Text] In 1985, Hebei began compiling results from its strategy to apply scientific and technological methods to animal husbandry. Embryo transplants in dairy cows have made new progress. There were nine common calf embryos transplanted and the rate of success has gone from 21.4 percent to 40 percent. Dairy cattle embryos transplanted into cattle have succeeded for the first time in Hebei.

In the appraisal of Holstein dairy cow breeding, 6,000 mature cows are on the average producing 5,500 kg of milk annually.

There have been breakthrough achievements in the breeding of Wujiao goats. Initially, five pure Wujiao rams were selected for research through a new method to select [for breeding] pure and hybrid Wujiao rams based on external characteristics. In this field they lead the nation.

Hebei completed its first important hog-breeding selection process based on finding a relation between sex and fat content that could determine a superior composite; it was ascertained that with a Hanpuxia as sire in a hybrid, the results were best, the lean meat ratio being 58 percent at highest. Research on immunity to cysticercosis in pigs has led to new ways to deal with this disease.

The Chengdu Prefecture animal husbandry station and the nearby animal husbandry bureau participated in the north mountain area integrated beef cattle technological research project sponsored by Beijing Agricultural University. Whereas it used to take 3 years to fatten a cow, it now takes 1½. The frozen semen conception rate is now 75 percent and the use of injections to increase weight have been successful.

Tangshan for the first time held a dairy goat competition, with 148 goats winning awards.

The 10,000 head of local varieties of Hupi yellow rabbits produced in 1982, in which both the skin and meat are utilized, has grown to 200,000 head today.

More than 110,000 manmade enclosed pastures have been planted with grass, 10-fold more than last year. The Guyuan planted pastureland and its machine and implement research operation has been declared a prototype for the mechanization of manmade pasture areas.

The Hu family enterprise in Xiangtai City and the Beijing Nutritional Institute have established a joint facility for science and production research. They are working on the propagation of fine meat and fowl varieties and the development of feed and comprehensive processing techniques.

13030/13046
CSO: 4007/290

BANKS' FUNDS AID SHRIMP BREEDING INDUSTRY

Shijiazhuang HEBEI RIBAO in Chinese 28 Jan 86 p 2

[Article by Chen Yuanliang [7115 0955 0081] and Liu Zhanjie [0491 0594 2638]: "Hebei Banks Lend Funds For Shrimp Breeding"]

[Text] Agricultural banks in coastal regions of Hebei have been actively lending money to aid in the development of coastal beaches and the expansion of shrimp breeding. As of November of last year, the total value of loans extended for shrimp breeding was 30 million yuan, 11.6-fold greater than the year before last.

Last year, agricultural banks in coastal areas stressed aid for seafood breeding. Under the national policy to control the amount of credit, funds must be rationally distributed. From January to the beginning of November, the total amount of loans for shrimp breeding was 37.8 million yuan, which accounted for 83 percent of all the development loans in Hebei. This helped construct 74,000 mu of pure shrimp-breeding pools, 13 shrimp incubation laboratories, 10 feed-rocessing plants, and several relevant, auxiliary engineering projects.

In the process of extending loans for shrimp breeding, several agricultural banks have become active in aiding those developing units to strengthen administration and management, which is a change from the past when only the extension of financial support was stressed. The first kind of managerial input is by insisting on superior breeding techniques as a basis for funding. Second, credit funds can be fully employed as a means to aid developing units find their own potential source of funding as well as attract foreign capital and promote joint development. Third, is to issue loans in stages and at appropriate times in conjunction with actual production needs. Fourth, is to focus on improving how the funds are used by participating in the work and having a hand in management and administration.

Last year, agricultural banks in coastal areas offered favorable conditions on loans for shrimp-breeding development. First, the term deadline can be extended up to 5 years. Second, the interest rate is low, more than 18 percent lower than for an ordinary loan. Moreover, the timely issuance of loans and their proper management provide strong support for the development of shrimp breeding. The loan agenda delineates the work and operations period, the earnings period, and the return on the investment. Many agendas define when the loan must be repaid. Consequently, shrimp-breeding units have raised production and overall output has increased tremendously with Hebei's output 6.2-fold what it was 5 years ago, putting it in the front ranks nationwide. Accompanying this has been a significant increase in income for coastal fishermen.

13030/13046
CSO: 4007/290

STATE FARM CHANGES HELP PRODUCTIVITY, EMPLOYMENT

Beijing NONGMIN RIBAO in Chinese 20 Jan 86 p 2

[Article by Li Fulai [2621 4395 0171]: "Family Farms in Pioneering Districts of Heilongjiang Glow With Vitality"]

[Text] When running family farms as an experiment in early 1985, not a few people in the pioneering districts of Heilongjiang took a wait-and-see attitude. But a year's practice shows that this kind of "small farm added to a large farm" dual-level system of operation not only brings into play the state-run farm unified operation's superiority, it also mobilizes the enthusiasm of the great masses of farm workers, and makes pioneering districts glow with vitality. Worker family farms from across pioneering districts developed from 34,000 in 1984 to the current more than 186,400. Even with last year's serious natural disasters and 20-percent drop in the province's grain and bean production, grain and bean production for nearly half of the pioneering districts' family farms still increased steadily.

For more than a year, the province's family farms exhibited an enjoyable change in four facets: (1) The sense of responsibility of worker masses strengthened greatly. With the state shrinking the money market, self-raised funds from all kinds of family farms across Heilongjiang Province exceeded 100 million yuan. (2) Expanding the ways workers get jobs. All told, more than 73,000 family members and youths awaiting employment in all the pioneering districts were absorbed last year into taking part in agricultural production, and the long-standing situation where only the state arranges for employment has changed. (3) The production structure developed steadily in the direction of rationalization and coordination. Currently, about 35 percent of the agricultural workers plant about 65 percent of the cultivated land in the family farms across the pioneering districts. (4) Farm and brigade enterprises exhibited a new appearance among the people collectively and individually. The Heilongjiang state-run farm system along has 44,000 permanent workers who have switched from farming to other production or service fields, which is over 20 percent of its work force. Provincial party committee secretary, Sun Weiben [1327 4850 2609], requested that they energetically initiate a new phase over the new year.

13152/13046
CSO: 4007/284

REGULATIONS SET TO LIGHTEN PEASANTS' BURDENS

HK190928 Zhengzhou Henan Provincial Service in Mandarin 2300 GMT 15 Apr 86

[Text] The provincial CPC Committee and government recently formulated some regulations on lightening peasants' burdens, demanding that all localities, prohibit arbitrary charges, use, and spending and make sure that all fees collected be used properly, so as to keep expenditures within the limits of income.

The regulations read: The allocation of town administration fees and village retention money for each village should not exceed 5 percent of the net per capita income of the village in previous year. As for direct charges on peasants, along with the readjustment of the rural production structure, the previous method of allocating charges according to land area and number of persons in each household should be changed. In future, reasonable figures should be fixed according to the income and workforce status of each household. Poor households should be granted a reduction or exemption according to their practical situations.

The amount of town administration fees and village retention money should be fixed yearly. Once town or village authorities have signed contracts with peasants for these amounts no changes should be made in the course of executing the contracts. The payment of the town administration fee and village retention money is usually made twice every year, in summer and autumn. Peasants should pay fees and monies as prescribed in the contracts. It is forbidden to apportion peasants charges not stipulated in the contracts. Peasants have the right to refuse to pay any charges not covered in the contracts.

The regulations pointed out that all public welfare activities organized by local governments or the relevant departments at or above county level should be covered by financial plans and be carried out with the approval of the People's Congress at the same level. Charging peasants for expenses of the public welfare activities is not allowed. It is necessary to resolutely implement various policies toward poor areas. Collection of management fees, commissions, or other fees from peasants or other individual laborers must accord with regulations stipulated by governments at or above county level. Except for what is stipulated in regulations formulated by governments at or above county level or in local rules formulated by the masses democratically, departments are not allowed to impose fines on peasants or confiscate their property willfully. Official receipts should be issued by the relevant departments for payment of fines according to the regulations. All fines should be submitted to the state as revenue, and departments are not allowed to use them. Licenses, certificates, marks, and registration certificates are issued by administration departments of the government free of charge, at cost. The charges for costs and collection methods should be examined and approved by pricing departments. In future, all documents concerning peasants' burdens must be examined by the provincial agricultural department and the provincial planning commission, and they can be issued only with the approval of the provincial CPC Committee and government.

Departments at all levels must stop executing those documents which contravene the above regulations.

/12712
CSO: 4007/375

RURAL ENTERPRISES BOOST LOCAL AGRICULTURE

OW211909 Beijing XINHUA in English 1446 GMT 21 Apr 86

[Text] Beijing, April 21 (XINHUA)--Rural enterprises in Jiangsu have effectively promoted local agriculture by adjusting the form of their aid to peasants, according to today's ECONOMIC DAILY.

Rural enterprises in some places in South Jiangsu now employ more than half of the local peasants, who have greatly helped Jiangsu to become one of the country's richest provinces.

While most peasants relied on industrial enterprises for their major income, farming was somewhat neglected.

To enhance grain production, enterprises in the countryside took over the management of farming by setting up agricultural departments in all companies, the paper says, calling it a "new breakthrough" in rural development.

The enterprises now see to the fulfillment of the grain output of each employee's family. The companies have invited agrotechnicians to guide production and let the workers go back home to take care of farming during busy seasons.

Their second step was to spend less money to compensate peasants' losses in grain production. Wuxi County, the country's richest, reduced this type of compensation from 32.6 million yuan in 1982 down to 12.7 in 1985, the paper says.

Meanwhile, rural enterprises used more money out of their profits to buy farm machinery and improve agrotechnology.

Over the past 7 years, the area devoted to grain decreased by 1.08 percent at Suzhou, but the fields yielded 4.21 percent more grain thanks to the new measures.

/8918
CSO: 4020/290

RECYCLING IMPROVES PROVINCIAL FARM EFFICIENCY

OW211044 Beijing XINHUA in English 1030 GMT 21 Apr 86

[Text] Nanjing, April 21 (XINHUA)--Jiangsu Province, with a large population and little farmland, is making a cycle use of materials in agriculture to cut down environmental pollution and boost production, a local official said today.

The ecological agricultural system, as the official of the provincial agricultural department called it, is led by the provincial agricultural and environmental departments and put into experimental operation in different areas.

Peasants in Haian County, East Jiangsu Province, now use compound feed to raise domestic animals and use animal dung to breed earthworms or generate biogas. Then they feed the animals with earthworms and cultivate fungus on the residue after generating biogas.

As a result, the peasants, who have an average of 0.06 hectares of farmland per person, produce 500 kilograms of grain and 72 kilograms of meat, eggs and fish a year.

This is one way to make cyclical use of the agricultural resources, the official said. Other modes include combination of crop cultivation with livestock breeding; crop cultivation and animal-raising with fish-breeding; and pasture growing alongside fish-breeding.

Thanks to tree-planting over the past 10 years, the green coverage rate in Fengxian County, which used to suffer from natural disasters in 9 years out of 10. In northwest Jiangsu, reaches 16.4 percent, up from 3.6 percent 10 years ago.

This has greatly improved the local climate and helped accelerate grain production and provide rich feed for livestock.

Many peasants have altered the farming system in line with local conditions to make the best use of the sunlight, water and soil. While using solar and wind power, Jiangsu has built 720,000 biogas pits to ease the firewood shortage in the rural areas.

/8918
CSO: 4020/290

CONFERENCE DISCUSSES WAYS TO EXPAND LIVESTOCK INDUSTRY

Nanchang JIANGXI RIBAO in Chinese 4 Jan 86 p 1

[Unattributed Article: "Province Convenes Conference on Livestock Work; Province Governor Ni Xiance [0242 3759 4595] Stresses That There Needs To Be a Major Development in Raising Cattle and Sheep"]

[Text] The Provincial Livestock Work Conference was convened 27 to 29 December 1985 in Yongxiu County. On the basis of exchanging and summing up experience, the conference discussed and studied the further development of the province's livestock industry, and especially production problems in raising cattle, sheep, and other ruminants. Provincial Governor Ni Xiance telephoned comrades who were at that time attending the Provincial Livestock Work Conference in Yongxiu on 28 December. He said that he was very pleased to hear that they were convening this meeting. Ruminants, especially cattle and sheep, constitute an important part of the livestock industry, and also are a totally weak link in the livestock industry. Understanding needs to be raised, cattle husbandry separated from the traditional view of only serving cultivation, and commodity production developed. This is an important road to farmer prosperity. Our province is rich in the natural resources of grassy mountains, grassy embankments, and prairies, and has advantageous conditions for developing ruminants. Advanced technology needs to be pragmatically grasped, livestock raising scientific, breeding quickened, circulation enlivened, and a good job done at various kinds of service work. Major development is needed in the livestock industry, especially in raising cattle and sheep. A firm foundation must be created to realize the overall strategy of economic development as proposed by the provincial party congress, and to build the province into a base area as proposed in this overall strategy in order to provide even more animal protein to the country. Chairman Zhao Zengyi [6392 1073 4135] of the Provincial Advisory Commission went to the conference to speak. Zhang Fengyu [1728 6646 7183], gave the conference's concluding remarks.

The conference analyzed the province's livestock production conditions. In the period of the Sixth 5-Year Plan, the province's average annual livestock industry output value has grown at a rate of 11.23 percent. Pig litter production for the 1985 year plan was completed 3 months early. The rate leaving the pen is around 80 percent. Shanggao, Dongxiang, Xiajiang, and Wuning counties have realized one pig per person. After 13 years of fluctuation in the cattle industry, last year the total number of cattle reached 2.38 million, with nearly 10,000 milk cows. One head of cattle or better per household has already appeared in Anfu, Xiajiang, and Taihe counties, becoming the production base for the province's commodity cattle and dual-use milk and work cattle. Compared with sheep raising in 1984, the number in pens has increased by 23.1 percent, and there has already appeared in Guangfeng County one head of sheep for every two households. "Three grasslands" utilization has already begun to draw attention, bases for grass varieties established, and full-steam ahead in manmade pasture construction. However, the livestock industry as a whole is still a weak link in the province's agricultural economy, and cattle raising, sheep raising, and other ruminant production also is a "short leg" in the cattle industry.

The conference considers the province's cattle husbandry development slow. For the most part, the reason is that cattle husbandry has yet to become a commoditylike production. It is still only a subsidiary means of production that is indispensable in cultivation. Cattle are raised for cultivation. Economic benefits are not great. For this reason, cattle-raising households always raise small cattle, are unwilling to raise large cattle; always raise bulls, and are unwilling to raise cows. Cattle husbandry must be separated from solely being for cultivation, and all-out development sought. No matter whether it is work cattle or milk cows, beef cattle, or dual-use cattle, if farmers are willing to raise them, all are to be supported and encouraged, and farmers guided in the direction of commodity production. The stress is to be on breeding. Rewards are to be given for breeding small cattle, scientific cattle husbandry knowledge is to be spread, and fertility and fecundity are to be raised. The current natural pastures are to be fully utilized, and the benefits of currently available natural resources brought into play. Dispersed small pastures can be directly distributed to households specializing in cattle husbandry. Larger pastures can be organized for joint household or collective operation. At the same time that the currently available "three pastures" are being utilized, energetically improve varieties and gradually establish manmade pastures and partly manmade pastures. Livestock-product service systems for processing and circulation need to be handled well to enable livestock products to smoothly enter circulation channels, and to promote the continued and steady forward development of the province's cattle husbandry.

13152/13046
CSO: 4007/286

HARVEST BOUNTIFUL, OVER 3 BILLION JIN GRAIN SHIPPED

Nanchang JIANGXI RIBAO in Chinese 2 Jan 86 p 1

[Article by reporter Peng Chunlan [1756 2504 5695]: "Bountiful Provincial Grain Harvest, An Endless Stream of Grain Buyers; Last Year 3 Billion Jin in Grain for Trade Were Shipped Out"]

[Text] During the season for seeing out the old and welcoming in the new, good news has been received from the provincial grain department--after achieving a bountiful harvest from grain production, an unending stream of grain buyers have been coming to our province. Across the province, grain to be shipped out in trade in 1985 can reach 3 billion jin, a 50-percent increase over last year.

At the same time last year when the province was doing a good job of adjusting farm village industrial structure, a tight and relentless grip was kept on grain production. Farmers were encouraged to plant more high-grade rice. Total grain production exceeded 30 billion jin. Grain departments province-wide established more than 5,000 grain purchase outlets and 500 million jin in new storage were added. At the same time as this, grain departments energetically completed the grain-transfer plan sent down by the Central Committee, and energetically expanded interprovincial grain adjustments. The province promptly transported trade grain to help Fujian, Guangdong, Yunnan, Guizhou, Guangxi, and other provinces and self-governing regions where there were comparatively large grain shortages due to adjustments in farm village production structure or to disasters. Grain was sold at competitive prices to more than 20 provinces and municipalities across the country. According to statistics, the province had already shipped 2,816,000,000 jin in grain for trade between January and November 1985, and 200 million jin were en route in December. Trade grain shipped for the whole year might exceed 3 billion jin, 700 million jin more than shipped in the historical high of 1983.

13152/13046
CSO: 4007/286

JIANGXI

BRIEFS

SUGAR OUTPUT HIGH--According to statistics for the last third of December 1985 from the province's summingup meeting on sugarcane production technology, the province's mechanically extracted sugarcane harvest was 435,200 mu, a 35,400-mu increase over 1984. Gross sugarcane production in agriculture was 1,651,000 tons, an increase over 1984 of 270,000 tons or 19.63 percent. Yield per unit area was 3.8 tons, an increase over 1984 of 0.34 tons or 9.8 percent. One million, one hundred fifty-eight thousand tons of sugarcane can be made available for industrial raw material, a 32.5-percent over 1983. Calculated according to sugar production rate levels for recent years, about 145,000 tons of sugar can be produced. In all, it surpasses the highest levels in history. [Text] [Nanchang JIANGXI RIBAO in Chinese 2 Jan 86 p 1] 13152/13046

CSO: 4007/286

JILIN

MEETING ON ANIMAL HUSBANDRY DEVELOPMENT HELD

SK180457 Changchun Jilin Provincial Service in Mandarin 1030 GMT 17 Apr 86

[Excerpt] From 15 to 16 April, the provincial People's Government held a meeting of various city mayors to extensively discuss the development of animal husbandry of the province. The meeting set forth specific stipulations on carrying out protective prices in egg procurement, lowering the prices of forage grass, increasing allocations for epidemic prevention, expanding pork sales and procurement, and reducing pork reserve, in order to ensure the production of chicken and hog, increase the production of cattle and sheep, and improve the people's living standards.

The meeting was attended by mayors of various cities as well as heads and administrative commissioners of various autonomous prefectures. Also attending were responsible comrades of the pertinent departments of the provincial People's Congress, the Propaganda Department of the provincial CPC Committee, the provincial Trade Union Council, and the pertinent commissions, offices, departments and bureaus at the provincial level.

The meeting was presided over by Vice Governors Gao Wen and Wang Jinshan. Governor Gao Dezhan spoke at the meeting.

Participants in the meeting fully affirmed the excellent situation of the province's animal husbandry development. Thanks to the successful implementation of policies and effective measures, the provincial animal husbandry registered a considerable development in the first quarter of this year, despite the serious natural disasters in the past year. Compared to the corresponding period of last year, the number of slaughtered cattle and pigs increased by 30 percent and 11.7 percent respectively. Poultry raisers have shifted their enthusiasm in breeding last year to developing normal production. Increases were registered in both outputs and sales of meat, eggs, and milk. In particular, prices of fresh eggs and pork have dropped in a stable manner, and their production and marketing have been brisk.

The meeting pointed out: Due to the serious natural disasters, the price of forage showed an upward trend last year. As a result, the masses' enthusiasm in raising chicken has been dampened, and quite a few chicken growing households have been reluctant to do the work of having chickens brood. Worse still, some places have experienced chicken pest as a result of the shortage of allocations for epidemic prevention and the lack of work in this regard. Owing to the increase in hog procurement, the decrease in hog sales, and the expansion of hog reserve, some places have found it difficult to sell their hogs, and the price of their young pigs has dropped. Plus the shortage of grain, some places have suffered from the shortage of forage, thus dampening the initiative of the masses in raising hogs. The meeting called on all localities to expeditiously adopt measures to solve these problems.

/12712
CSO: 4007/375

STATE INTERVENTION IN MARKETPLACE DEFENDED

Assuring Raw Materials

Yinchuan NINGXIA RIBAO in Chinese 19 Jan 86 p 1

[Article by Jiang Aili [5637 1947 7787]: "Self-Government Region Livestock Products Co.'s Participation in Market Adjustment Develops the Function of the Main Channel; Livestock Product Gross Sales Figure Achieves the Highest Level in History, Assures Raw Materials Used in Industry, and Contributes to the Self-Governing Region's Winning Foreign Exchange Through Exports"]

[Test] The self-governing region's livestock products company develops its function as a main channel in product circulation, actively participates in market adjustments, and does a good job of livestock product management. Last year, gross sales for livestock products exceeded 38 million yuan, achieving the highest level in history. Not only were natural resources used in industry assured, a contribution was also made to the winning of foreign exchange through exports.

After multichannel operation was implemented early last year for livestock products, some collectivized and individualized entrepreneurs drove up prices, adulterated and lowered the quality of fine wool, and harmed the economic interests of the nation. Confronting this situation, the Self-Governing Region Livestock Products Co. brought the main channel's favorable conditions fully into play, actively participated in market adjustments, started joint enterprises above and below, and seized the initiative in fine-wool sales. In light of the purchase price for the self-governing region and districts in neighboring provinces, they settled on more reasonable negotiated prices, and signed contracts for joint operations with six main livestock-product areas inside and outside the self-governing region. Contracts stipulated that county companies and grassroots cooperatives get 60 percent when profits are redistributed at the end of the year. In case of losses, the county company is only responsible for 30 percent, and the self-governing region company is responsible for 70 percent. If there are economic losses due to technical reasons at grassroots purchase points, the self-governing region company is responsible to make good the loss. At the same time, anyone who sells 500 jin of cashmere will be rewarded by being sold a name brand bicycle or other popular item of manufactured goods. This sort of "leaving the benefits to the primary level and sharing the risks" economic pattern mobilizes purchase department enthusiasm in prime production areas. When the Yancheng County Supply and Marketing Cooperative signed a purchase contract last year with herdsmen, part of the estimated down payment was granted to the herdsmen to assist with the purchase of production material. After the price of cashmere rose, they once again promptly retroactively paid to the herdsmen the price difference, which the herdsmen welcomed and which led to trust. Altogether, this county purchased more than 1 million jin, and the self-governing region's company gave profits of 110,000 yuan in return. The Self-Governing Region Livestock Products Co. purchased more than 4.6 million jin in cashmere last year and returned more than 560,000 yuan to primary-level purchase departments.

To protect commercial prestige, the Self-Governing Region Livestock Product Co. strictly controls the quality of cashmere purchased. During the buying season, technical personnel are dispatched to the various cities and counties to hold training classes for purchasing personnel, assist the various purchasing outlets in the work of getting started, assure purchase quality, and the wool sent to users in and out of the self-governing region is to reach more than 40 percent washed clean. Users are very satisfied. As for cashmere supplies, this company energetically supported productive enterprises in the district. In conformity with the principles of protecting their investments and making small profits, they allocated prices that were only slightly higher than the purchase price, and supplied as much as is needed. The livestock company still uses negotiated commodity exchange, using this self-governing region's local sheep's wool in exchange for 100,000 jin of thin sheep's wool from outside the self-governing region for the Yinchuan Yarn Factory to solve pressing production demand. At the same time as this, they still have launched jointly run businesses with the self-governing region's foreign trade departments, exported more than 40 tons of processed cashmere, and won for the country more than $2 million in foreign exchange.

NINGXIA RIBAO Commentary

Yinchuan NINGXIA RIBAO in Chinese 19 Jan 86 p 1

[Unsigned Commentary: "State-Run Enterprises Need To Energetically Participate in Market Adjustments"]

[Text] Today, when a new system of circulation is being put into practice, is the state going to run commercial enterprises energetically, bring the function of the main channel into play, and spontaneously participate in market adjustments, or will it watch passively and let the market develop freely? This is an important indicator for testing whether state-run commercial enterprise department reforms will succeed or not. The self-governing region's livestock company chooses the former. They broke with the old pattern of operation, fully brought into play the state-run commercial enterprise department's favorable conditions of structural soundness, full complement of personnel, many locations and wide area, precise information, credit and reputation, and facilities for operation and technical strength, and so on, and launched joint operations with grassroots-level purchase spots and other trades, got a grip on supplies, strengthened competitiveness, and fostered the function of keeping prices down, protecting the interests of producers and consumers, and ensuring resources for industrial use. Their experience is worth reference and study by commercial enterprise departments.

The function of putting into play the principle channel needs to start with helping production and expanding the supply of goods. Abandon this point, and the principle channel will become "water without a source, wood without a root." Because of this, commercial enterprise departments need to spontaneously participate in commodity production, and give a whole series of services in the aspects of technology, capital, material, and information. It is also necessary that special measures be taken to ensure that producers have a stable income. Link together production, purchase, and service, and establish mutual dependence and economic links where no one can disassociate himself from others.

In order for the state-run commercial enterprise departments to win in competition, they still need to break out of previous patterns of operation, take the new road of joint operation above and below and within and without, and add value through processing. It is necessary to firmly set up an ideology of the upper level serving the grassroots level, help the grassroots level solve concrete problems, and eliminate fear of disturbance from behind. In the distribution of economic benefits, insist that the large share go to those below and the smaller share go to those above. Under the precondition of ensuring that the grassroots level gets a sizable amount of the benefits, fully mobilize the enthusiasm of the grassroots-level purchase departments in order to facilitate getting a hold on the important supply of goods, and do a better job of participating in market adjustments.

13152/13046
CSO: 4007/284

GRAIN CONTRACT PURCHASES LOWERED; INCREASED PRODUCTION URGED

Yingchuan NINGXIA RIBAO in Chinese 24 Jan 86 p 1

[By NINGXIA RIBAO Commentator: "Get Moving at the Earliest on Getting a Handle on Grain Production"]

[Text] Beginning last year, the second-stage farm village reforms, which targeted the restructuring of the agricultural product unified purchasing system and the adjusting of the production structure, obtained perfectly distinct achievements. Enthusiasm by the great masses of farmers for producing according to the needs of the market has grown steadily. Horizontal links in the commodity market have developed. The consistently weaker forestry, livestock, fishing, and processing and service industries have strengthened. Farm village progress is by way of integrated operation and coordinated development. Farm village economies are lively and conditions good.

A problem currently worth paying attention to is the drop in some places of farmer enthusiasm for growing grain. The self-governing region's grain production is more than 200 million jin less than last year, and the current tendency to ease up in some places on grain production has yet to take a turn for the better.

Not long ago, the National Rural Work Conference pointed out that grain is an irreplaceable major product that is connected to the national economy and the standard of living. Grain production must get practical assurances. We must have progressive knowledge of the logic of "no stability without agriculture" and "chaos without grain," and seriously put into practice the guiding principle of "unequivocally not loosening up on grain production, and energetically developing diversified operation." A steady increase in grain is a prerequisite to structural adjustments in farm village production. Grain is also a low-profit commodity, and diversified economies must be relied upon to supplement incomes. Because of this, diversified economies also cannot be ignored. Various places in the self-governing region, and especially districts that draw from the Huang He irrigation ditches, should even more fully emphasize grain production, deeply and widely propagandize to the masses the party's relevant policies and the great significance of doing a good job of grain production, and raise the enthusiasm of the great masses of farmers for doing a good job at grain production.

Changing from the unified grain purchase to the contracted grain-purchase system is an important reform, can only be perfected gradually, and the direction of reform cannot be shaken just because of the appearance of yearly fluctuations. To protect and encourage farmer enthusiasm for producing and selling grain to the state, the size of contracted purchases will be suitably reduced for this year, greater weight will be given to expanding the market for negotiated-price purchases, and, moreover, loans will be given on preferential terms to provide fixed amounts of fertilizer at cost to farmers who sign contracts. At the same time, the autonomous region will still, according to financial conditions, increase its agricultural investments appropriately, and lower water fees and other farmer burdens. When adjusting the size of contracted purchases, attention must be paid to taking care of areas with a large potential for increasing grain production, but limited alternatives for other production. We must sum up the experiences and lessons from contracts signed last year for contracted grain purchases, get moving at the earliest to energetically finish the signing of grain-purchase contracts before spring planting; let the farmers know what to expect; and organize production as early as possible.

In order to encourage farmers to do a good job of grain production, we should still pay attention to solving the problems of too large a gap in income between those who grow grain and those who engage in industrial sideline production, overburdening in grain farming, and so on. Some better developed counties and townships should give suitable and sensible subsidies to farmers who produce and sell to the state a lot of grain using the pattern of "using industry to supplement agriculture" in rural commerce.

Currently, the preliminary production of plowing and sowing is being carried out across the great expanse of farm villages. All levels of leadership should propagate the spirit of the Central Committee's documents to the farmer masses, help with formulating and putting into practice production plans, organize agriculture technology departments to do a good job of spreading scientific technology, help farmers do a good job with the work of harrowing the land, preserving soil moisture, applying fertilizer, utilizing improved varieties, and so on, pragmatically to a good job of grain production, win a fresh rich harvest this year, and mobilize farm villages for continuous, stable, and coordinated economic development.

13152/13046
CSO: 4007/286

BRIEFS

WHEAT FIELD PESTS--According to SHAANXI RIBAO, sucker pests have now appeared in 8 million mu of wheat in the province, seriously infesting some 3.3 million mu. Experts estimate that in fields where there are over 2.5 million of these pests, no harvest can be expected if the normal yield is below 600 jin per mu unless effective action is taken. Experts point out that now is the key time to deal with these pests, and a shock drive should be launched. [Summary] [Xian Shaanxi Provincial Service in Mandarin 0200 GMT 18 Apr 86 HK] /12712

CSO: 4007/375

NEW METHOD OF GRAIN PROCUREMENT TO BE TRIED

Taiyuan SHANXI NONGMIN in Chinese 28 Jan 86 p 1

[Text] On the afternoon of 23 January at the party committee work conference, Provincial Party Secretary Wang Jiangong [3769 1696 0501] said: In order to maintain and encourage active peasant production and sale of grain, a new and improved method of grain procurement will be instituted this year.

Below are concrete aspects of this new method:

1. There will be an appropriate reduction in the volume of contracted grain procurements and an increase in the proportion based on a negotiated market price will be expanded. Thus, purchases of grain outside of contracted procurements will increase and market mechanisms will determine the price. When the market price is high, a higher ratio of grain will be purchased through price negotiations; the highest price cannot exceed the original over quota price. When the market price is low, the negotiated price is determined by the protected price, which is 10 percent lower than the market price. This will allow peasants to perhaps realize increased income from increased production.

2. Those counties which transfer out grain should be appropriately subsidized.

3. Beginning 3 June of this year, the procurement price for wheat will be calculated according to the inverse 2:8 ratio.

4. Procurement contracts for the period 1986-1988 are not alterable in that 3-year period.

5. Outside of commodities determined for procurement by the state, such as wheat, rice, and corn, product varieties should coincide with circumstances in Shanxi; hence, the production of sorghum, soybeans, millet, and oats should increase.

6. In order to make up for crop failures with a bumper harvest, areas may increase emergency procurements, but by no more than 10 percent.

7. Those peasants having signed procurement contracts for grain or oil will be offered a fixed amount of chemical fertilizer on a parity basis. If 100 jin of wheat is to be procured, an equally valued 20 jin of fertilizer (standard chemical fertilizer) will be furnished. If 100 jin of autumn grain is set to be procured, an equally valued 10 jin of chemical fertilizer will be furnished. If 100 jin of oil products are to be procured, then 50 jin of fertilizer will be provided.

Procurement plans for grain, cotton, and oil must be known to households before sowing and planting. The manner of contracted procurement must, as far as possible, be coordinated with the manner of account settlements. When peasants sell grain and cotton they should be paid. Outside of agricultural taxes which should be honored at the correct time, no other kind of deduction can be forcibly ordered.

13030/13046
CSO: 4007/290

COOPERATIVE SYSTEM SHOULD BE IMPROVED, NOT ABANDONED

Taiyuan SHANXI NONGMIN in Chinese 4 Feb 86 pp 1,2

[Article: "Improvement of the Agricultural Cooperative System Must Adhere to Six Measures"]

[Text] At present, not a few peasants and some cadres at the basic level do not sufficiently understand the rural cooperative system. Some individuals even have mistaken ideas that improvement of the cooperative system means again implementing "mutual aid teams," "collectivization," etc. To address this problem, during a work meeting convened by the provincial party committee we visited Comrade Wang Jiangong [3769 1696 0501], deputy secretary of the provincial party committee.

Comrade Wang Jiangong pointed out that improvement of the rural cooperative system is a fundamental objective of the rural economic reforms. It also is objectively needed for the development of the rural commodity economy. After the first step of rural reform, the dual-level system of cooperation was implemented, combining centralization and privatization. But in many cases, the joining of centralization and privatization was not implemented well. Those tasks that should be privatized were, but those tasks that should be centralized were not. The peasants have not been pleased with this situation. Therefore, the joining of centralization and privatization should be firmly supported, and technical services, operational services, and coordinated management that is necessary should be done well. In recent years, Shanxi's peasants have voluntarily joined in developing more than 92,000 specialized joint economic organizations. Peasants should be encouraged to create all kinds of specialized joint entities, gradually forming a new kind of cooperative economy.

What particular problems should receive attention during the improvement of the cooperative system? Comrade Wang Jiangong mentioned six measures:

1. Support of cooperation should take service as the main component. Improvement should begin with services, meeting the many kinds of needs of peasants for services before, during, and after production. All cooperative economic organizations must be organized to help the peasants help themselves. They cannot be organized primarily for profits.

2. Support of the contract responsibility system means that family operations should be long-term, without changes. The CPC Central Committee has repeatedly stressed that the family contract system is a long-term policy of the party. The desires of the masses definitely cannot be ignored. Changes will not be made casually. The improvement of the dual system combining centralization and privatization definitely is not an abandonment of family operations. Rather, it starts on the base of family operations, and combines all tasks that should be centrally managed and all those tasks that individual households have difficulty managing on their own. The problems that remain during the first step of reforms should be gradually solved by improving the collective operational levels in the contract responsibility system.

3. Diversification of the cooperative system should be supported. Peasants should be permitted to cooperate and join together using a variety of different functions, forms, scale, and degree, all according to their own customs and needs. Mention of cooperation should not mean that it has to be organized one way throughout a district. It also does not mean that all production materials must be consolidated, that there can only be cooperation in production, that management, labor, and distribution all should be controlled tightly. Improvement of the cooperative system definitely should not follow that old path.

4. The principle of selective guidance should be supported. No more "one cut of the knife." In those places where the families in a collective lack substantial resources, it is best to organize mostly small-scale joint entities, providing for cooperation for short periods and particular tasks. This helps the peasants reduce their production and financial difficulties, gradually increasing in cooperative substance. In those places where the commodity economy is comparatively developed and collective enterprises already are fairly well established, the true functions of cooperative economic organizations and the conditions for centralized operations should be realized. The basic construction and technical transformation of agriculture should be strengthened. Comprehensive operational systems that combine "planting, cultivation, and expansion" should be organized, hastening the coordinated expansion of agriculture, industry, and commerce. Peasants who produce special-order goods or specialized goods can organize specialized cooperative economic organizations on their own, according to their production needs. In most areas, regional cooperative economic organizations supply technical, marketing, and other services, according to the needs of produciton, to the peasants that produce primary crops.

5. The voluntary nature of participation should be supported. All cooperatives and alliances must discuss matters with the masses and respect the wishes of the masses. The power of selection must be given to the masses. Joining together cannot be effected by using the force of a political movement or by using administrative orders.

6. The direction of reform of supply and marketing cooperatives should be supported. Supply and marketing cooperatives should become institutions that help lead peasants through the shift from a natural economy to a commodity economy. Reforms must be supported so that the cooperatives will

provide cooperative commerce that thoroughly serves the peasant masses. The relationship of buying and selling should become one of service. The cooperative should really organize production, participate in production, and serve production. Gradually, it should become a comprehensive service center encompassing rural supply and marketing, processing, savings, transportation, and technical services. It should become the primary conduit that delivers management news and market news to the peasants. Policies should treat supply and marketing cooperatives according to the collective units to which they belong. They should be run according to economic principles. No department should be permitted to indiscriminately transfer its funds and property.

12994/13046
CSO: 4007/295

SHANXI

BRIEFS

CORN EXPORTS--In the first quarter of 1986, Shanxi exported 164,000 tons of corn. This year the state has assigned Shanxi the task of exporting 500,000 tons of corn. [Summary] [Taiyuan SHANXI RIBAO in Chinese 3 Apr 86 p 1]

CSO: 4007/376

SICHUAN

AGRICULTURAL STATISTICS RELEASED FOR 1985

Chengdu SICHUAN RIBAO in Chinese 8 Mar 86 p 2

[Excerpts] In 1985, the social output value in rural Sichuan was 44.877 billion yuan based on 1985 prices, a 12.0 percent increase over 1984. The output value of agriculture was 30.539 billion yuan (based on 1985 prices it was 35.253 billion yuan), an increase of 9.0 percent over 1984, and exceeded the planned target of 6 percent growth, if the output value of village industry is deducted from the sum, the figure is 26,592 billion yuan, a 3.2 percent increase. Of this, the proportion of rural industry, construction, commerce, and transportation increased from 26.7 percent in 1984 to 32.5 percent. Of the gross agricultural output value, the proportion of forestry, animal husbandry, sideline and fishery industry increased from 39.7 percent in 1984 to 44.9 percent; of the seeding industry, the proportion of cash crops and other crops rose from 27.3 percent to 31.5 percent, the proportion of grain crops dropped.

In 1985, due to a more than 6 million mu reduction in the area sown to grain and natural disasters, gross output of grain was 38,307,000 tons, a 2,490,000 ton reduction over 1984.

Output of major agricultural products:

	1985 (10,000 tons)	Increase in 1985 over 1984 percent
Grain	3830.7	-6.1
Rice	1926.1	-5.3
Wheat	625.5	-11.0
Cotton	11.3	-28.3
Oil-bearing Crops	151.2	28.1
Peanuts	27.3	12.0
Rapeseeds	122.8	32.9
Sugarcrops	265.4	17.4
Sugarcane	264.2	17.6
Jute, Ambari Hemp	29.5	84.9
Flue-cured Tobacco	5.9	50.0
Silk Cocoons	10.7	2.3
Tea	5.2	7.1
Fruit	81.7	14.2

The province afforested 9,726,000 mu in 1985, a 4.1 percent reduction over 1984.

Output of major animal by-products and number of livestock:

	1985		Increase in 1985 over 1984 percent
Output of Pork, Beef, and Mutton	283.1	(10,000 tons)	17.3
Pork Output	275.8		17.9
Beef Output	4.1		-1.9
Mutton Output	3.2		1.9
Milk	21.9		10.3
Sheep Wool	0.2		2.4
Hogs Slaughtered	4469.1	(10,000 head)	15.4
Pigs at Year End	5916.3		4.4
Large Animals at Year End	986.6		1.5
Cattle	939.6		1.2
Sheep at Year End	876.9		-6.5

The output of aquatic products was 129,000 tons in 1985, a 24.0 percent increase over 1984.

At the end of 1985, the aggregate power capacity of the province's farm machines was 12,510,000 horsepower, a 7.7 percent increase over 1984. The number of small capacity and walking tractors was 134,000, a 7.2 percent increase over 1984; trucks 26,000, a 45.7 percent increase; and irrigation and drainage equipment 3,388,000 horsepower, a 5.3 percent decrease over 1984. The consumption of electricity in rural areas was 2.490 billion kwh, a 18.0 percent increase. A total of 1,347,000 tons of chemical fertilizer were applied, a 3.4 percent increase over 1984.

/12232
CSO: 4007/368

RESEARCH PROVIDES GAINS IN AGRICULTURE

Chengdu SICHUAN RIBAO in Chinese 26 Jan 86 p 2

[Article by Yang Delong [2799 1795 7893]: "Great Achievements in Scientific Research in Agriculture"]

[Text] During the period of the Sixth 5-Year Plan, the provincial Academy of Agricultural Sciences faced agricultural production and carried out scientific research. It linked closely with Sichuan's agricultural production structure, adjusting and expanding commercial production. It studied more than 320 topics and obtained important scientific research results in 129 projects, among which 96 obtained important science and technology prizes from the state, the Ministry of Agriculture, Animal Husbandry, and Forestry, and from the provincial government.

During the Sixth 5-Year Plan, the provincial Academy of Agricultural Sciences bred new varieties, hybrids, and materials of grains, cotton, edible oils, silkworms, tea, and fruits, which have high yields, superior quality, and low costs. Land devoted to these products have been extended to more than 60 million mu. Among them, there were 12 rice varieties that passed provincial area testing and obtained the approval of the provincial breeding examination and approval committee. Wither-resistant cotton antigen varieties "52-128" and "57-681" have been used throughout China by 12 provincial cotton-breeding units. More than 30 improved varieties have been bred and planted on more than 5 million mu. The antigens have won the state's top-level awards for invention. Jin oranges, which is a superior variety of oranges, have been bred and extended. By 1983, more than 80 million trees had been planted in Sichuan. This year, they brought in income of more than 34 million yuan. In 1985, they won the state's second-level award for scientific and technological progress.

The provincial Academy of Agricultural Sciences and pertinent government departments have cooperated in applied research which has developed high-yield growing methods for grains, cotton, oils, silkworms, tea, fruits, and other items, and scientific application of fertilizer, changes in the cultivation system, and prevention and treatment of diseases and pests. The results have been excellent. The application of the results of scientific research projects such as "Planting Methods of Crossbred Middle-Season Rice for Stable Yield and Avoidance of Disaster in the Hot-Weather Districts of

Southeastern Sichuan," "Planting Methods of High-Yield Superior Varieties of Middle-Season Rice on the Plain of Western Sichuan," and "Methods of Close Planting Wheat," have been extended to more than 80 million mu. With cooperative assistance from the provincial seed company and other units, seed production methods for hybrid rice seed farms has increased from 26 jin per mu in 1977 to more than 270 jin per mu in 1985. This has made an important contribution to Sichuan's expansion of hybrid rice. This project won the state's second-level award for scientific and technological progress.

The provincial Academy of Agricultural Sciences has also expanded new methods in applied research. It established the currently largest cobalt radiation station for agriculture in China and a central experimentation center that has advanced testing procedures that are of early 1980's international standards. Radiation use has produced more than 40 new rice and wheat seed materials. In addition, improved rice and wheat varieties that have been raised, such as "Sichuan Radiation No 1," have contributed more than 200 new plant materials to breeding units inside and outside the province. The use of modern testing equipment to study soils, fertilizers, animals, plants, and minerals for such things as trace and poisonous elements, and to study the composition of agricultural products, has provided inside and outside the province more than 200,000 items of scientific data, contributing to deeper agricultural scientific research a rich source for building theory.

While studying the macroeconomy and development strategies, the provincial Academy of Agricultural Sciences has sponsored "Methods of Economic Evaluation of Scientific Research in Agriculture and Their Application in the Management of Scientific Research." Based on surveys of the results of 603 projects at 27 agricultural research stations in Sichuan, the methods developed are simple, practical methods of evaluating the economic returns on the results of agricultural scientific research. These have already been extended throughout China.

After summing up past experiences, the provincial Academy of Agricultural Sciences during the Seventh 5-Year Plan will support reform, implement the spirit of the latest Central Rural Work Conference, and strive to make new contributions to agricultural modernization.

12994/13046
CSO: 4007/295

XIZANG

BRIEFS

MORE FRESH VEGETABLES AVAILABLE--Ihasa, April 21 (XINHUA)--Residents in this capital city of the Tibet Autonomous Region will soon triple their fresh vegetable intake to 0.4 kg each per day. The city, some 4,000 meters above sea level, is expected to produce 5,500 tons of vegetables this year, compared with 300 tons in 1985. Previously 20 percent of the vegetables on sale had been airlifted from Chengdu, the capital of neighboring Sichuan Province. This year, the city government has invested 3.4 million yuan to complete 13.3 hectares of greenhouses and deep-freeze warehouses which can preserve 3,500 tons of vegetables. This has made it possible for housewives to buy fresh vegetables including cucumbers, peppers, celery, spinach and tomatoes all year round. More than 70 kinds of vegetables are now being raised on the "roof of the world." [Text] [Beijing XINHUA in English 0904 GMT 21 Apr 86 OW] /8918

CSO: 4020/290

YUNNAN

AGRICULTURAL STATISTICS RELEASED FOR 1985

Kunming YUNNAN RIBAO in Chinese 5 Apr 86 p 2

[Excerpts] In 1985, the social output value in rural Yunnan was 11.628 billion yuan, a 12.6 percent increase over 1984. Of this, the proportion of rural industry, construction, commerce, and transportation increased from 20.7 percent in 1984 to 23.6 percent.

The gross agricultural output value was 9.656 billion yuan (including village-run industries) an 8.2 percent increase over 1984, exceeding the planned target of 6 percent growth. The proportion of forestry, animal husbandry, sideline and fishery industry increased from 44.2 percent in 1984 to 47.7 percent. If the output value of village industry is deducted from this sum, the figure is 8.88 billion yuan, an 6.4 percent increase over 1984.

In 1985, the gross output of grain was 9,350,000 tons (18.7 billion jin), a 700,000 ton (1.4 billion jin) reduction over 1984.

Output of major agricultural products:

	1985 (10,000 tons)	Increase in 1985 over 1984 %
Grain	935	
	(18.7 billion jin)	-7.0
Oil-bearing Crops	11.81	-4.5
Rapeseeds	7.17	-14.3
Sugarcane	479.77	
	(95,954,400 dan)	27.0
Flue-cured Tobacco	41.00	
	(8.2 million dan)	49.1
Silk Cocoons	0.18	2.9
Tea	3.11	
	(621,500 dan)	10.3

The province afforested 60.57 hectares (9,086,000 mu) in 1985, a 9.6 percent increase over 1984. Output of natural rubber increased 4.1 percent, raw lacquer increased 10.8 percent, walnuts 8.6 percent, and Chinese chestnuts 19.0 percent.

Output of major animal by-products and number of livestock:

	1985	Increase in 1985 over 1984 %
Output of Pork, Beef, and Mutton	56.83 (10,000 tons)	10.2
Pork Output	54.40	9.0
Milk	4.22	13.7
Large Animals at Year End	874.13 (10,000 head)	5.9
Pigs at Year End	1703.30	9.2
Sheep at Year End	723.94	-2.6

The output of aquatic products was 26,500 tons in 1985, a 22.7 percent increase over 1984.

At the end of 1985, the aggregate power capacity of the province's farm machines was 5,972,400 horsepower, a 7.9 percent increase over 1984. The number of large and medium-sized tractors was 17,700, a 3.8 percent decrease; the number of small capacity and walking tractors was 73,800, a 20.8 percent increase over 1984; trucks 10,500, a 40.0 percent increase; and the number of irrigation and drainage equipment was 41,800, a 9.9 percent decrease over 1984. The consumption of electricity in rural areas was 754 million kwh, a 12.5 percent increase. A total of 1,558,600 tons of chemical fertilizer were applied, a 5.9 percent increase over 1984. The province irrigated 14,474,300 mu, 50,000 mu more than last year.

CSO: 4007/376

BRIEFS

FERTILIZER SALES--Based on statistics, within the first two months of 1986, commercial departments in Yunnan had sold 198,200 tons of chemical fertilizer, a 21 percent increase over the same period last year. At the end of February, commercial departments in Yunnan had 1,014,000 tons of chemical fertilizer in stock. At present, the main problem is the rate of allocation. Based on statistics, of the 1,014,000 tons of fertilizer in stock, the stock of supply and marketing cooperatives accounts for only 390,000 tons, a decrease of 18,000 tons over the same period last year. [Excerpts] [Kunming YUNNAN RIBAO in Chinese 5 Apr 86 p 1]

CSO: 4007/379

PROGRESS IN RESEARCH OF PLANT VIRUS DISEASES WITH INSECT VECTORS

Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 6, 8 Dec pp 20-22

[Article by Yuan Yili [7086 5030 3810], Virus Diseases Laboratory, Zhejiang Academy of Agricultural Sciences]

[Abstract] Since broad bean virus disease propagated by aphids was first reported in China in 1939, more than 100 plant diseases (insect-borne) caused by 68 kinds of viruses and mycelia have been found. Of these diseases, nearly 30 involve Gramineae cereal plants; more than 60 involve Cruciferae, Cucurbitaceae, Leguminosae and Solanaceae plants (fruits and vegetables); and 20 diseases relate to fruit trees and woody plants. As proved by innoculation, 52 insect species listed below serve as vectors: 22 species of aphids, 20 species for flying louse and cicada, and 10 other species. The number of papers was only 4 before the 1940s and increased to more than 130 from 1980 to 1984. This paper presents progress in research on insect-borne plant diseases in 5 aspects; species of insect vectors and virus disease characteristics; ecology of insect vectors and plant viruses; studies on insect breeding, biological characteristics, and field sampling methods; disease forecasting; and preventive treatment.

10424/13068
CSO: 4011/32

BIOLOGICAL PREVENTION, TREATMENT OF ANTHRAX IN LYCIUM CHINESE, MILL. (BRIEFING)

Tianjin ZHIWU BAOHU [PLANT PROTECTION] in Chinese No 6, 8 Dec 85 p 32

[Article by Liu Yinghui [0491 5391 1979] of Plant Protection Department, Beijing Agricultural University, and Zhang Tongshun [1728 0681 7311] and Sun Mingxiu [1327 2494 4423] of Dezhou Prefecture Pharmaceutical Company, Shandong Province]

[Abstract] Lycium chinense, Mill. is one of China's valuable medicinal herbs. In recent years, large areas growing the herb in Shandong, Hebei and Henan provinces were infected with anthrax, resulting in a herbal output reduction of about 50 percent. In 1983 and 1984, the authors engaged in biological prevention and treatment of anthrax; tests of small field plots were conducted (in Qingyun County, Shandong Province) with significant results. Two kinds of mycorrhizae were found to be efficacious in preventing and treating anthrax; red hemp anthrax bacteria and tangerine leaf anthrax bacteria. As shown in the single table in the article, the average efficiency of the former is 83.02 percent, and the latter--87.75 percent. Spraying was performed once a week, and the test consisted of 7 sprayings.

10424/13068
CSO: 4011/30

HONG KONG

CANNED FOOD MARKET IN HONG KONG 'TREMENDOUS'

Beijing NONGMIN RIBAO in Chinese 1 Feb 86 p 2

[Text] Hong Kong's canned food market handles a tremendous volume, yearly importing about $HK 1 billion worth of canned food, of which half is sold through entrepot trade and half is sold on the domestic market.

Canned food in Hong Kong is mainly an import commodity, and last year these imports were valued at $HK 941 million. The variety of these canned goods is extensive, with the five main categories being meat, seafood, vegetables, fruit, and soup. Canned vegetables make up the largest component and it is also the fastest growing category. In 1984, canned vegetable imports were valued at $HK 292 million, which was 31 percent of total canned food imports. Altogether, the volume was 37,400 tons. Following this was: canned meat, valued at $HK 232 million, the total volume being 21,800 tons; canned seafood valued at $HK 230 million, with a volume of 5,012 tons; canned fruit and fruit juice were valued at $HK 128 million for a volume of 20,000 tons; and canned soup imports were valued at $HK 55,150 with a volume of 6,096 tons.

China's canned food commodities have long held the top position in the Hong Kong market. In 1984, $HK 459 million worth of canned goods was sold to Hong Kong; the volume was 53,000 tons. This was 48.8 percent of the total value of Hong Kong canned food imports. Canned vegetables led the way with a value of $HK 207 million and a volume of 25,000 tons; that value accounted for 45 percent of China's canned food sales to Hong Kong.

Among other nations whose canned foods Hong Kong imports, America leads the way. Last year, $HK 149 million worth of canned food was shipped to Hong Kong, an increase of 7 percent over the previous year. American canned food accounts for 15.8 percent of Hong Kong's canned food imports.

Last year, Australia shipped $HK 64.15 million worth of canned food to Hong Kong. Mushrooms are the main canned food produced in Hong Kong, and last year 1,007 tons were exported at a value of $HK 119 million.

13030/13046
CSO: 4007/290

END

JPRS-CAG-86-020

21 MAY 1986

China Report

AGRICULTURE

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-020

21 MAY 1986

CHINA REPORT

AGRICULTURE

CONTENTS

PEOPLE'S REPUBLIC OF CHINA

NATIONAL

Ma Yongwei Discusses Stimulating Rural Economy
(Ma Yongwei; NONGCUN JINRONG, 1 Jan 86).................... 1

Increase in Peasant Income Reported in 1985
(Zhang Xiao'ou; NONGMIN RIBAO, 3 Dec 85).................. 14

Liu Guangyun Addresses Meeting on Forestry
(XINHUA, 28 Apr 86).. 16

Call To Develop Fast Growth High-Yield Tree Farms
(Liu Guangyun; NONGMIN RIBAO, 3 Feb 86)................... 17

Development of Township, Town Enterprises Promoted
(NONGMIN RIBAO, 20 Dec 85)................................. 20

RENMIN RIBAO Reports on Changes in State Farms
(Liu Ruiwu; RENMIN RIBAO, 22 Apr 86)...................... 22

State Aerial Seeding Project Considered Success
(XINHUA, 29 Apr 86).. 23

Grain Procurement for 1986 Discussed
(Cao Guangyu; ZHONGGUO CUNZHEN BAIYE XINXI, 14 Dec 85).... 24

Prevention of Crop Disease Depends on Forecasts
(NONGMIN RIBAO, 9 Dec 85).................................. 25

Importance of Forecasting, by Lai Yannan 25
How To Forecast, by Jiang Ruizhong 26

New Law To Control Pesticide Industry
(Guo Zhongshi; CHINA DAILY, 24 Apr 86).................... 28

400 Million Yuan Earmarked for Disaster Relief
(Liu Dizhong; CHINA DAILY, 22 Apr 86)..................... 30

Agricultural Insurance Discussed, Applauded
(Li Yingjiao; NONGMIN RIBAO, 29 Nov 85)................... 32

Briefs
Drinking Water Availability 33
Record Sugar Output 33
Scientists, Technicians Urged To Help Peasants 33
Grain Prices Increase 34

TRANSPROVINCIAL AFFAIRS

Soil Conservation for Huang He Valley Urged
(XINHUA, 25 Apr 86)....................................... 35

ANHUI

Province Becomes Major Grain Exporter
(Wang Likuang; ANHUI RIBAO, 16 Dec 85).................... 37

Success of Rice Market Promotes Development
(XINHUA, 26 Apr 86)....................................... 39

GUANGDONG

Hainan Agricultural Development Discussed
(Zeng Qingsong; NANFANG RIBAO, 2 Jan 86).................. 41

Briefs
Stable Commodity Prices 43

GUANGXI

Briefs
World Bank Loans 44

GUIZHOU

Briefs
Chemical Fertilizer Production 45

HEBEI

Rural Construction Progresses In Sixth 5-Year Plan
(Zhang Yu; HEBEI RIBAO, 21 Jan 86)........................ 46

Variety of Agrotechnical Services Introduced, Expanded
(Wang Wudai, Xin Dexiang; HEBEI RIBAO, 9 Jan 86).......... 47

HEILONGJIANG

Briefs

Potato Research Agreement With Canada 48

HUBEI

Hubei Issues Urgent Circular on Fighting Drought
(Hebei Provincial Service, 20 Apr 86)..................... 49

Briefs

Hubei Cotton Exports Reported 51

HUNAN

Issues in Second-Stage Rural Reforms Discussed
(He Shuyuan; NONGYE JINGJI WENTI, 23 Jan 86)............. 52

Overall Sales of Farm Machinery Remain Stable
(ZHONGGUO NONGJIHUA BAO, 2 Feb 86)....................... 57

Afforestation Activities Fully Underway
(RENMIN RIBAO, 19 Feb 86)................................. 59

JIANGSU

Briefs

Silk Output, Exports 61

JIANGXI

Agricultural Statistics Released
(JIANGXI RIBAO, 8 Mar 86)................................. 62

Briefs

Commodity Bases 64

NEI MONGGOL

Investment Increase in Grain, Cash Crops
(Tian Wenzhong; RENMIN RIBAO, 14 Feb 86)................. 65

Farm, Livestock Machines Developing Rapidly
(Nei Monggol Regional Service, 26 Apr 86)................ 67

Province Now Ranks Second in Beet Sugar Production
(XINHUA, 30 Apr 86)...................................... 68

QINGHAI

Briefs

Qinghai Farm Machinery Industry 69

SHANDONG

Shandong Issues Circular on Combating Drought
(Shandong Provincial Service, 30 Apr 86).................. 70

Briefs
Qiangdao Beer Production 72

SHANGHAI

Measures Proposed To Improve Vegetable Sales, Output
(WEN HUI BAO, 28 Oct 85).................................. 73

SICHUAN

Winter Water Conservancy Projects Yield Benefits
(Liu Suiming; SICHUAN RIBAO, 22 Jan 86)................... 76

State Grain Purchase Contracts Placed
(Sichuan Provincial Service, 28 Apr 86)................... 77

Meat Production To Increase by Six Percent
(XINHUA, 3 May 86).. 78

Jiang Minkuan, Yang Rudai Help Poor Farmers
(XINHUA, 22 Apr 86)....................................... 79

Briefs
Rapeseed Purchases 80

XINJIANG

Trends in Farm Machinery Sales
(Miao Shenming; ZHONGGUO NONGJIHUA BAO, 2 Feb 86)......... 81

XIZANG

Briefs
Agricultural Output Value 83

YUNNAN

Briefs
Tea Exports 84
Sugar Output 84
Fertilizer Output, Exports 84
Breeding Farms 84

ZHEJIANG

Farm Machine System Helps Support Commodity Production
(Chen Huaxin; ZHONGGUO NONGJIHUA BAO, 2 Feb 86)........... 85

Rural Reform Changes Zhejiang Peasants' Work
(XINHUA, 26 Apr 86)...................................... 87

ABSTRACTS

GENETICS

Ti Plasmid and Its Application in the Genetic Manipulation of Plant Material
(Jia Jingfen; YICHUAN, No 6, Nov 85)...................... 88

VETERINARY SCIENCE

Comparative Test of Four Serological Examinations for Sheep, Goats Infected With B. Meleitensis
(Qiao Tingshan; ZHONGGUO SHOUYI KEJI, 22 Oct 85).......... 89

Observations on Prevention, Control Effect by Oral Administration of B. Meleitensis Hog Vaccine
(Guo Lichuan; ZHONGGUO SHOUYI KEJI, 22 Dec 85)............ 90

12675/

MA YONGWEI DISCUSSES STIMULATING RURAL ECONOMY

Beijing NONGCUN JINRONG [RURAL FINANCE] in Chinese No 1, 1 Jan 86 pp 5-11

[Article by Ma Yongwei [7456 3057 0251]: "Inspire Enthusiasm, Hold Fast to Reforms, and Promote Full-Scale Development of the Rural Economy"]

[Text] We welcome 1986 under highly favorable conditions. Looking over the past year, the broad mass of cadres and workers in the strategic work of rural finance, led by the central leadership and the State Council, have steadfastly implemented State Council 1985 Document No 1 and the policies on controlling outlay of funds and the scope of credit. Under conditions of a sharp crunch between supply of and demand for capital, they have made major contributions to readjustments in the structure of rural production, development of the rural production, development of the rural commodity economy, and promotion of continuing, stable, and coordinated development of the national economy as a whole.

I

The strategic picture for China's agriculture in 1985 was extremely good. Major advances took place in readjusting the structure of production. Commodity circulation channels further expanded. There were new developments in social services. Even with severe natural disasters in some areas, farm production was still very good. Except for grain and cotton, there were extensive increases in output of other cash crops. To varying degrees, meat, dairy, and aquatic product output all showed increases. Township and town enterprise development was rapid, and gross output value surpassed 230 billion yuan. Farmer income continued to improve. Based on calculations by the relevant departments, per capita farm income may have hit 400 yuan--up about 45 yuan from the year before.

As the development of the rural commodity economy and reform of rural economic system has further intensified, the strategic picture for rural finances has remained very good. All levels of the Agricultural Bank and credit cooperatives have started out from the level of macroeconomic controls and made manifest improvements in vigorously marshalling and rationally utilizing capital, making versatile monetary adjustments, speeding up capital circulation, management standards, and economic returns.

Rural financial work was conducted in 1985 before the following economic backdrop: The state, on the one hand, maintained its liberalizing policy, reforming rural production structures, developing the rural economy, and enhancing its response to funding requirements. On the other hand, it also took into account and proposed policies at the macroeconomic control level to deal with the excessive expansion of basic construction, overheated growth in consumer funds and credit, overaccelerated rate of development, and problems which hampered the smooth progress of national economic system reforms which began to crop up in the last quarter of 1984. Rural finance departments were tasked with adopting measures and strengthening controls as well as revitalizing finance, assuring for the normal financial needs of farm production and commodity circulation, and promoting healthy development of the rural economy. For this purpose, all levels of banks and cooperatives did a great deal of work in such areas as propelling reforms in the rural financial system and strengthening operational management with manifest success. This was especially true among the mass of cadres and workers in the hard-hit regions, under the unified leadership of the government and the party, among whom a large contingent of advanced and unselfish individuals came forward affirmatively to resist and forestall disasters, struggled to restore production, and preserved the security of national property, for which they were applauded by leadership and the masses alike.

The reform of rural financial management systems was one of the major measures for implementing the central leadership's "Decision Concerning Reform of the National Economic System" and a persistent theme in rural financial work in 1985. Over the past year, we have stressed fortifying a totally democratic management system in accordance with the spirit of 1985 Document No 1 of the Politburo and State Council and 1984 Document 105 of the State Council. An operational and personal responsibility system bringing together rights and responsibilities has been perfected. Credit management has been strengthened, entrepreneurial vitality has been strengthened, and the socialist enthusiasm of cadres and workers has been mobilized--all serving to intensify reforms in the credit cooperative system. At the same time, we have proceeded from the actual situation in agricultural banks in accordance with the spirit of the Politburo's "Decision Concerning Reform of the National Economic System" and submitted our "Proposal Concerning Reform of the Agricultural Bank Management System." Moreover, we have begun to implement this proposal in a deliberate, conscientious, and appropriate fashion.

As we gain control over the construction of socialist material civilization, construction of socialist spiritual civilization has shown new development. Party rectification has taken place on a broad scale among rural banking and party organizations at both the local and the county levels, and the major party rectification tasks of correcting professional guiding ideology, rectifying new outcroppings of abuses, and establishment of groups of leaders have been performed. In addition, in the face of current issues, discipline and investigative work has been strengthened, along with ideals and disciplinary indoctrination. Serious economic criminal activity has been smashed, the unhealthy tendency to use credit for personal purposes has been rectified, and there has begun to occur a welcome change in party and banking practices.

Even as we fully affirm these successes, we must clearly recognize that many problems and difficulties still stand in the path of progress. Overall. our operational management standards are still rather low. A considerable amount of money is still unaccounted for. This has impacted upon improving credit and capital returns. The management of wealth is still inadequately sound. Activities without rules and rules without activities still crop up from time to time. The unhealthy tendency of using loans for private purposes is still quite prevalent; and in some areas it is very serious. The quality of cadres and work groups still needs to be improved. Reforms in the rural financial management system are still inadequate. Relationships in all areas need further improvements. Overall, we must fully acknowledge our successes and strengthen confidence. We must also be forthright in recognizing our problems, seek advice, and continue to progress in the right direction.

II

Last September, the Politburo convened the National Party Congress and the 4th and 5th plenums of the 12th CPC Central Committee. The session ratified historic documents and the major speeches of leading comrades in the Politburo. It fully elaborated a whole series of issues concerning major policies and principles facing the party right now, and clarified the direction progress should take toward further reforming the party as a whole, propelling development of the national economy, and strengthening establishment of a spiritual civilization. It laid a firm foundation for China's continued economic growth and sustained political stability from now on.

The year 1986 is the first year of the Seventh 5-Year Plan. The Politburo proposed in its recommendations on plans for the Seventh 5-year Plan that: economic work during this period must still place priority on reform; basic equilibrium between supply and demand for society as a whole must be maintained; tackling and improving economic results and abiding by the principle of tackling both material and spiritual civilization at once must be maintained. As the major organic component of the national economy, rural financial sectors must abide by these basis policies as well, conform to actual circumstances, set forth their own development strategies, formulate concrete policies and measures, set forth goals for struggle during a specific period, unite the ideology and behavior of the mass of cadres and workers, and fulfill the glorious tasks which the party and the state have given us.

In 1986, we will face many new situations and new problems. We must proceed by accurately assessing circumstances and solve problems realistically as initial considerations.

1. In the first 2 years of the Seventh 5-Year Plan, the state shall continue to control total social demand and thereafter create a more relaxed economic environment. The role of the banking system in accumulating and circulating funds, guiding them into channels, improving its utilization efficiency, and regulating total social demand must be brought fully into play. The problem of the excessively rapid pace of growth must be resolved gradually, along with such other problems as curbing excesses in the scope of capital investment and

the overheated growth in consumer funding. While holding onto conditions present in 1985 for curbing the scope of total capital investment, we must make some small adjustments and use the next 2 years or so to gradually solve the problems we face, while avoiding the losses and shocks which come from proceeding too fast. Obviously, the crunch between supply and demand for finances will be prominent throughout this year. Out continued strengthening of macroeconomic controls is still a major policy of the party and the state for sustaining continued, stable, and coordinated development of the national economy. Under these circumstances, increases in rural credit funds cannot be solved by handouts from above. One must set out to enlist capital on one's own and find potential sources. We must make full ideological preparations for this.

2. In 1985, China's rural areas began to readjust the internal structure of crop planting in accordance with market demand. Area planted in grain crops and the proportion of such crops fell. Planting of cash crops and the proportion thereof increased. Although there were some disparities in the extent of crop readjustments from region to region, the trend was a common one. In some areas, adjustments in the makeup of planting consisted purely of reducing grain fields and planting cash crops, and excessive reductions in the area planted in grain impacted on the stable growth of grain production. Thus the state has required that adjustments in the proportional relations in the makeup of plantings of different crops be made to suit local conditions and after strengths have been tested. The premise for diversified operations is that grain production is assured. China has vast mountain, grassland, lake, and shoreline regions which have not yet been exploited. Abundant mineral resources have not yet been rationally exploited. Large amounts of raw materials for farm products await processing and utilization. Conditions are ideal for development of diversified operations; but only if those operations are made intensive and technologically advanced and the road which links "farming, livestock, and processing" can farm income be increased and rather well-off standards gradually be reached.

Development of township and town enterprise is a necessary road for us in invigorating China's rural economy. In the last few years, township and town enterprise has been developing rapidly. But under current conditions, proceeding from the requirement that total social supply and demand remain level, development of township and town enterprise must take into consideration the ability of the state to provide credit, funds, materiel, energy, and transportation. Township and town enterprise needs readjustment and restructuring, strengthened management, improved return, new technology, an overcoming of blindspots, and maintenance of a reasonable pace of growth. This will require rural credit work to adopt responsive funding policies and measures. If township and town enterprise funding is to develop, the primary emphasis must be placed upon these enterprises themselves for accumulation.

3. A major reform in China's grain-procurement policies over the last year was the shift from planned procurement to fixed procurement contracts. This policy is to continue this year. The production and circulation of farm products should gradually shift to market regulation under the leadership of planning. That is to say, outside of fixed procurement under contract there

are considerable amounts of farm and sideline products which should depend upon market regulation. Responsive policies for supplying funds to carry this out and principles which treat them in varying ways should be implemented. The supply system should be changed into one in which fulfillment of fixed-procurement contract quotas remains a priority as we measure our ability to supply funds to the market regulated sector and proceed on that basis.

4. Due to factors, such as the shortage of capital, which cannot be resolved in the near future, the trend toward capital accumulation activities within rural society should grow. Accumulation of funds from society is a mode which fosters their lateral movement. It brings together funds dispersed throughout society and undoubtedly both necessary and allowable under party policies. Practice has demonstrated that results gleaned from these rural accumulation activities have been excellent for the most part. But because guidelines are still insufficiently clear and the management system is not yet sound, there are still problems which need to be solved. Primary among these are excessive administrative expenses and increased burdens on farmers; removing funds from banks for deposit in cooperatives is not conducive to macroeconomic controls; expansion of investment outside planning is not well focused, etc. Therefore, the Agricultural Bank and credit cooperatives should coordinate themselves with the accurate guidance provided by the People's Bank. They should strengthen management and bring their rural accumulation activities into step with the state's macroeconomic policies, thereby achieving development which is sound.

Since the beginning of 1985, some townships have been using revitalization of funding as a pretense for setting up various forms of monetary organs and credit services without getting permission from the people's banks. This form of monetary enterprise is now growing. It not only interferes with the financial markets; it also hinders the smooth progress of reform of the economic system. For this reason, these activities should be cleaned up and rectified in coordination with the People's Bank. Investigations should be strictly carried out; and those found inappropriate should be banned.

5. During 1986, the reform of the economic system as a whole should continue to go forward at a steady pace. We have done much to open things up and revitalize them in the past few years, with manifest results. At present, as we go further to perfect microeconomic activities and mechanisms, we should shore up our indirect controls through macroeconomic activities. That is, we should bring out the regulatory role of diverse economic levers and perfect our economic legislation and supervision. In the first 2 years of the Seventh 5-Year Plan, the focus of reform should revolve around stabilizing economic demand, and, at the macroeconomic level, strengthening and perfecting indirect control systems. Farm banks should maximize the regulatory role of such economic levers as loans, interest rates, and settling accounts based upon the way reforms of entrepreneurial operations are going. They should strengthen such supervisory professions as auditing and accounting. They should gradually establish sound legal criteria for the business activities concerned.

6. In order to vigorously develop the rural economy, the party and state will continue to perfect and develop such operating methods as the household

contract, output-linked production responsibility system. With household operations as a foundation, farmers will be encouraged to develop cooperative and joint operations of various kinds based upon the principle of free will and mutual benefit, gradually leading to the establishment of sound pre- and post-production services, a speedup in the transformation of science and technology, an expansion of knowledge in the countryside, advancement of agricultural production technical standards, and an unending improvement in product quality and economic returns. The State Science Commission has recently put together a short commentary on a rapid science and technology program of "spark plans" geared toward development of township and town enterprises. This was of tremendous significance in propelling development of science and technology in China's countryside. All levels of the Agricultural Bank and credit cooperatives must cooperate closely to promote the conscientious implementation of plans.

During the Seventh 5-Year Plan, the state will also be rearranging the relationships between the east, central, and western regions to bring out the best of each, strengthening lateral relationships, and gradually establishing economic networks which differ in level, scale, and special features. Changes in the backward face of the old revolutionary bases, hinterlands, and deprived areas and further relax policies fostering and strengthening the vitality of these regions to bring them to the point where they can rely primarily upon their own resources, with the assistance of the state, by accelerating the development of their economies and cultures. In all minority regions, old revolutionary bases, and outlying regions, agricultural banks and credit cooperatives should readjust the local rural credit agencies in accordance with state strategic plans, increasing loans of funds, assisting these regions to strengthen their "rejuvenating" functions, and promote the development of economic and cultural activities.

III

Based upon the guiding spirit of the suggestions made by the central leadership in the Seventh 5-Year Plan and the circumstances we now face, the primary tasks of rural finance include: holding fast to implementing the spirit of the National Party Congress and of 1986 Document No 1, holding fast to the direction of reform of the rural financial system, strengthening macroeconomic controls, striving to revitalize finance, bolster management of loans, rectifying party and banking practices, and further promoting readjustments in rural production structures and development of the rural commodity economy.

1. Reform will come first in the new year.

The suggestions in the Politburo's Seventh 5-Year Plan indicate that this period is the key one for comprehensive reform of economic systems; reforms should continue to hold priority; and within these 5 years or somewhat more, the foundation for a socialist economic system which has special Chinese features and is full of life and vitality should be in place. One major reason China's rural finance has been able to achieve successes in recent years in the process of promoting development of the rural commodity economy and reform of economic systems at the same time as it was transforming and developing itself is that "left" ideological tendencies have been conscientiously eliminated and that reform of rural economic systems has gone forward deliberately and in a planned way. Reforms began with the credit cooperatives and later spread to the agricultural banks. By thoroughly implementing a series of major reform measures, agricultural banks and credit cooperatives have been able to progress steadily in the direction of socialist entrepreneurial business. They have gradually adapted to the objective needs of changing rural production relationships and promoted improvements in the productive level of agriculture.

The second state of rural reform comprising primarily readjustment of rural production structures and improvement of agricultural production levels is already in full swing. All sorts of relationships mirrow the needs of this second stage of reform, involving such areas as how to accumulate more capital, how to stregnthen credit management and improve economic return, how to bolster the internal vitality of the banks and cooperatives, and how to smoothly effect the work of agricultural banks and rural finance as a whole. These major issues require a search not only for theoretical answers, but also for practical solutions. Reform is where our future and our aspirations lie.

Reform of rural financial systems is a tremendous and complex systematic project. Last year, as I became involved in carrying out the basic reforms in the credit cooperative system, I came up with some initial thoughts on reform of the Agricultural Bank. The guidelines set by the Politburo and State Council for reform of the Agricultural Bank and credit cooperatives are on target. The direction the reforms are going in is correct as well. The substance, method, and pace of reforms is basically feasible. Of course, reform means something that our predecessors have not tried; and it would be impossible to imagine that a whole set of reform proposals could be put completely into place within a specific period of time with absolutely no disruptions. The constraints of internal conditions and the external environment combined with the imperfection and incompleteness of these reform proposals can lead to problems of various sorts in the process of actualization. A small minority of people have gone so far as to use the reforms to flout laws and discipline. There is nothing strange in this. The key is to make the character of the problem absolutely clear and to find its causes. It needs to be recognized that the problem is primarily one of progress, the basic reason for which lies not in the reform policies themselves but in the fact that our working systems and implementations have not been put into place in a timely way in the reform process. This problem can only be solved by ceaselessly improving our reform proposals and by working hard. There is no need to give up eating for fear of choking. Every comrade who cares about reform of rural financial systems must be willing to shoulder the temporary difficulties encountered in the reforms and be steadfast in moving the reforms forward.

Among the suggestions in the Politburo's Seventh 5-Year Plan were regulations in principle concerning what needs to be done to reform the rural financial system, and which provide the primary basis for this year's reform of agricultural banks. The "suggestions" require first of all that the banks play a role in the nation's activity by accumulating, circulating, and channeling funds, upgrading returns on them, and regulating overall social needs. Accumulating funds is placed in the primary position. When adverting to the relationship between the People's Bank and the specialty Banks, the suggestions demand that the primacy and independence of the central bank be strengthened. All financial institutions must accept the guidance and management provided by the People's Bank in their activities. The People's Bank should beef up its supervision and auditing of the activities of financial institutions and control the loan activities of all specialty banks and their financial organs. Commercialized operations should be implemented within all specialty banks along with establishment of loan and approval systems. Cross-connections between the various activities of the specialty banks should be allowed and lateral circulation of currency should be encouraged. In the matter of how to handle the relationships between banks, the government, and customers, banks are to have the power to issue loans themselves in accordance with plans and loan policies approved by the state. The banks themselves should be free to decide how much or how little to loan, for how long, and at what interest rate. They should also bear the risk for so doing. All levels of government should supervise and support the banks in following state financial policies and should ensure that the legitimate rights and interests of the banks are not infringed. As for the question of direct versus indirect credit, the "suggestions" acknowledge indirect loans by banks as primary at the same time as they recognize that such direct credit modes as accumulation from society can serve a supplementary function. All various forms of credit are permitted through many different funding channels to strengthen lateral funding relationships, maximized funding potential and conservative use. The gradual establishment of money markets is promoted. Still, the banks have responsibility for affirmative leadership, managing capital accumulated from society and the loan activities of other financial institutions in accordance with law.

Based upon the above principles, at the same time as reform of agricultural banks themselves is taking place, the relationship between the banks and credit cooperatives should be arranged in accordance with the spirit of 1984 State Council Document No 105 and Central Document No 1 of recent years. Credit cooperatives should follow the guidelines of the state's macroeconomic controls under the leadership of the agricultural banks. The proportion of reserve funds ratios among credit cooperatives in poorer regions should be determined accordingly. Ratios may be lowered by an appropriate amount, and approval of an interest rate for such funds should be in accordance with the principle of paying the interest while maintaining the principal. There may be subsidies for interest rates on transferred deposit accounts. Once a credit cooperative has deposited adequate reserves, the cooperative should be permitted to utilize whatever remaining funds it has on its own, loaning as much as it has. The scope of activities of credit cooperatives should hold to the "three priorities." A portion of the total of loan funds can be earmarked for farm loans to assure that funding requirements for planting and livestock are met. The link between the banks and the cooperatives should be in the county bank branch offices. The joint county cooperatives which is the parent institution of the grassroots level cooperative should be directed to service to those grassroot components. Reflecting upon the fact that work of the joint cooperatives is currently being managed by the credit sections of branch banks, there is a necessity for supplementing and bolstering organs and staff for these sections. To a great degree, the leadership of credit cooperatives by agricultural banks takes place in the bank's business office. Many of these offices have been lax in their leadership of credit cooperatives. This is not right. All levels of the agricultural bank should make improving and strengthening their leadership of credit cooperatives into a major component of how reform of these cooperatives is to be resolved. The cooperatives must themselves set up sound operational and personal responsibility systems which combine responsibilities, rights, and benefits. They should correctly manipulate the relationships between the three, mobilize the enthusiasm and creativity of cadres and workers, guard against singleminded pursuit of profit and bad issuance of loans which lead to capital losses. They should realistically shore up credit and financial management, bring hidden funds back to life, improve economic return, and turn over losses within a specific timeframe.

2. In this new year, we must certainly make bolstering credit management and improvement of economic returns our priority. Improving and bolstering credit management and improving operational management levels now have even more urgency and significance. As the commodity economy has developed since the 3rd Plenum of the 11th CPC Central Committee, the scope of rural credit has increased rapidly, and it is projected that by the end of 1985, the total surplus of bank and cooperative loans would reach 200 billion yuan--more than a two-fold increase over the figure for 1984. The average annual increase of 50 percent greatly exceeds the average yearly increase of 10 percent for China's agriculture. Sample surveys show that suspended and idle funds comprise a significant proportion of the total. The state cannot give the agricultural banks any funding increase over the next 2 years. One important remedy is to go after inactive funds, use cash wisely, speed up the circulation of capital, and improve economic returns. A major survey of credit in banks in 19 provinces, autonomous regions, and central government municipalities reveals a loan surplus of 27.5 billion yuan, of which idle loans constituted a major proportion, mostly for grain, supply and sales, township and town enterprises, and large specialized households. The most prevalent problem is that in-house funds are inadequate and that more loans are being diverted. Unreasonable usages of funds are numerous and have come to impact on all loans. There are many problems with loans to specialized households--especially large ones. Losses from multiple loans in different districts, avoidance of credit supervision, and loans from banks and cooperatives at the same time have been large. There have been sporadic incidents of lax loan investigations and management, blind support, automatic submission to demands, regulations unheeded, and prohibitions unenforced. The problem of using loans for personal purposes has been considerable in some areas. Over and above the question of how customers use the loans is the fact that the banks and cooperatives have relaxed their management of credit and investigations and supervision have been less than vigorous. Credit must be reformed in the new year. Management must be realistically strengthened to get down to the real numbers, analyze the causes, adopt measures, clearly enforce credit discipline, readjust credit policies, upgrade the quality of credit personnel, and bolster economic supervision. It must be clearly recognized that given the scale of

our credit, there is plenty of room for settling accounts and speeding up circulation. If all comrades in banks and cooperatives put their efforts together for this task, they will be able to satisfy the normal funding requirements for development of the rural commodity economy to the greatest extent possible under conditions of continued maintenance of macroeconomic controls.

3. In this the new year, we must definitely place our priorities upon vigorously enlisting capital and strengthening the real strength of capital within the Agricultural Bank.

The extent to which we can bring forth the role of the Agricultural Bank in indirect macroeconomic control depends upon the amount of money we have. This requires a major conceptual change away from singleminded reliance upon credit cooperative deposits to include an improvement in our own solicitation of funds to provide the funds we need. This need not be limited to savings deposits, but should also include all sorts of deposits.

Different methods can be geared to different depositors. Networks should be reasonably expanded and agents vigorously developed. Services should be up to date and promotion of deposits begun. Types of deposits should be diversified and cash management improved, along with speeding up return of cash to the banks. The work of distributing rural financial bonds should be conscientiously summarized, so that within the period of this Seventh 5-Year Plan, with the permission of the People's Bank, an appropriate distribution of new bonds can be done. Units and individuals of outstanding merit in developing rural deposits should be given awards and incentives.

As China's economy has warmed up internally and the open door policy has been conscientiously implemented, the Agricultural Bank has developed friendly relationships with financial institutions and banks around the world through such diverse methods as intermediary loans and cooperative leases. There is already a substantial investment of foreign funds. This plays a positive role in opening up economic ties between China and foreign nations in funding, technology, and equipment. Once approval of the People's Bank is attained, the Agricultural Bank will continue to strengthen international intercourse and attract even more foreign capital based upon the principle of equality and mutual benefit.

Planning is the primary basis for implementation of macroeconomic controls. Under the premise that credit plans set by the state will be assured, we should fully and flexibly use credit funds and bring the adjustment role of credit into play. The direction of investment of credit funds should facilitate control over the scope of investment in fixed assets, irrational increases in consumer funds, and the excessive speed of development of township and town enterprise. The guidelines of "no relaxation over grain production and affirmative development of diversified operations" should be adhered to. There should be vigorous support for grain production and integration of trade, industrial, and farm operations. The route to be taken is toward a linkup of "planting, animal husbandry, and processing." Comprehensive development of forestry, livestock, sidelines, and fisheries should be supported. Science is a productive force and the power of technology is unfathomable. The basic path for China's agriculture is toward technological transformation and intensive operations. Rapid rural technical transformation, spread and utilization of advanced, agricultural science technology, increase in the variety of sideline products, and improvement in farm product quality should be vigorously supported. As we perfect the output-related household contract responsibility system, we should also be fostering cooperative development and diversified joint operations under the principles of free will and mutual benefit. Based upon the need to expand market regulation under the guidance of planning, we must strengthen specialized management of funds for purchase of farm byproducts, open up channels of circulation, and promote the development of the commodity economy.

Support for township and town enterprise requires implementation of the policies of affirmative maintenance, logical planning, accurate guidance, and better management. Development of township and town enterprise must primarily rely upon capital accumulation and measured and stable progress. Enterprises must be assisted in strengthening operational management, importation of production technology, improvement of economic returns, and support for the enterprise to use its own strengths to reinvest in production. We must promote readjustment and restructuring of township and town enterprise and guide it toward sound development.

We must bring the role of interest-rate leverage fully into play. Based upon the basic rate and the extent of float set by the People's Bank, we should have a floating interest rate and a discount rate with differential treatment for superior performance. This will lead customers to look for economies in accounting, improve economic return, and assure the security of funds.

We must strengthen economic supervision and set up auditing bodies with full contingents of accounting personnel, along with a sound auditing and accounting system, assuring that all the various service activities of the Agricultural Bank and credit cooperatives develop in a healthy fashion in accordance with party policies.

4. We must work to realistically strengthen party and banking practices. Management of the two civilizations is a strategic policy raised by the party congress. Marxism holds that matter determines spirit. Spirit has a strongly counteracting effect upon matter. A degree of scientific knowledge is a major prerequisite for working successfully at rural finance. The distant ideal of communism is the spiritual pillar supporting successful work in rural finance. Strict discipline is a reliable guarantee that reform of the rural financial system will go smoothly. The socialist enthusiasm and creativity of the broad mass of cadres and workers and a feeling of autonomy is a strong propelling force for the development of socialist rural finance. Practice has demonstrated that if the Agricultural Bank and credit cooperatives are to fulfill the tasks given them by the party and the state, they must tackle spiritual and material civilization at the same time.

Comrade Chen Yun has pointed out that the question of party practices is related to the major issue of the party's fate. Currently, spiritual civililization construction must first look to a favorable change in the behavior of the party and of society. Looking at it from the overall picture of the rural banking system, we have done a great deal of work to rectify abuses and strengthen party and banking behavior. Behavior in these two areas has begun to turn for the better. But there are still many problems. Using loans for personal purposes is a serious abuse. Economic crimes and nonadherence to laws and party discipline are problems which occur. These problems seriously hamper the goodwill of the state and the bank. They interfere with reforms in the economic system and have spoiled a number of cadres and workers. This area requires attention.

A sense of urgency is required if these party and banking abuses are to be corrected. The 12th CPC Congress proposed that party practices and social behavior undergo a change for the better over the next 5 years, and that work over the next 2 years should start from the present and be done both thoroughly and effectively. All levels of party organization should put the building of spiritual civilization on their daily agenda, take the lead, make oneself an example, and overcome red tape. The comrades with primary responsibility must take on the work of party practices themselves, and when problems arise, the leader responsible must be identified. The key to improvement in banking practices lies in improving party practices. The key to improvement in party practices lies with the leadership. It is of extreme importance for leading organs in local, provincial, and central banks to set a good example. All levels of leadership must understand this clearly. We are here to assist the public, not for personal profit. We must have integrity in public service and devote ourselves wholeheartedly to service of the people. This is the very minimum. Reform of party and banking practices begins with education, realistic strengthening of ideological and political work, relations with the actual situation in one's own unit, geared always toward educating the broad mass of cadres, party members, and workers in the nature of the party, its ideals, and its discipline. The conception of what the party is, of the overall picture, of discipline, and of the legal system must be strengthened, along with an immunity against the corrosive influence of bourgeois ideology. We must establish the authority of organs engaged in ideological and political work with full contingents of ideological and political workers, improve work practices, perfect the content of education, and seek real results from it. We should link education in ideals with the goal of the struggle with reality and with education in worker morality so as to make it more concrete and more poignant.

Education is not all-powerful. It must be supplemented with discipline. Illegal, undisciplined, and recidivist behavior should be severely dealt with in strict accordance with the law. Comrades displaying ideals, abiding by discipline, and exhibiting morals should be lavishly rewarded; and fines and rewards should be clearly delineated. We should eventually reach a social atmosphere such as that proposed by Comrade Hu Yaobang: "Concerned for the whole of society, versed in collective action, stressing real results, and competing in making contributions."

In this new year, the key to our achieving the above tasks lies with leadership; and leadership is service. We should further strengthen the organization, ideology, and behavior of leaders at all levels. We must improve our work practices and work methods, be willing to do what really counts, spend less time talking, seek truth from facts, direct in specific ways and not have a single method for everything, so that our work is solid. Right now, whether a comrade is young or old, all must learn anew and rapidly come to understand new problems. All should study the basic principles and methods of Marxism and new scientific knowledge so that they can accurately understand and resolve the new situations and new problems which continually crop up in rural financial work; and ultimately open up a new situation for that work.

12303/12851
CSO: 4007/304

INCREASE IN PEASANT INCOME REPORTED IN 1985

Beijing NONGMIN RIBAO in Chinese 3 Dec 85 p 1

[Article by Zhang Xiao'ou [1728 2556 7743]]

[Text] According to a sample survey of rural households in 28 provinces, autonomous regions and municipalities administered directly by the national government, this year, while agricultural production was severely affected by drought, waterlogging and other natural calamities and grain yields declined, the cash income of farmers still rose considerably, and purchasing power also rose correspondingly. According to a survey of 62,300 farm households, between January and September of this year, farmers' per capita cash income reached 241.02 yuan, an increase of 62.96 yuan, or 35.4 percent, over the same period in the previous year. The main reason for the broad increase in farmers' cash income are as follows:

In accordance with the spirit of this year's Document No 1 of the Central Committee, places everywhere adjusted the rural industrial structure, agricultural and sideline commodity products increased, and apart from grain, there was an overall increase in income from product sales. From January to September, the per capita cash income from product sales increased 30.1 percent over the same period in the previous year, and after deducting for price inflation for agricultural and sideline products, it still rose 19.9 percent. The increase in income from products came primarily from cash crops and other agricultural crops, animal husbandry and handicrafts.

Township and town enterprises developed quite rapidly, and the income earned by farmers from enterprises increased. From January to September, the per capita income earned by farmers from collective centralized enterprises increased 27.2 percent over the same period the previous year. Of that, the cash income obtained directly from townsjip and town enterprises increased 54.9 percent, or 85.2 percent of the whole. Income earned from economic associations increased 32.1 percent. The income from business activities such as the construction industry, transportation industry, productive labor services, commerce, the catering trade and service industries became an important channel for increasing farm income. From January to September of this year, farm income from these sources was 18.9 percent of their total income, an increase of 57.9 percent over the same period last year.

In addition, the opening up of agricultural and sideline products is also a major reason for the increase in farmers' income. According to estimates, from January to September, the per capita income from this advantage was 16.7 percent of the per capita cash income. From January to September of this year, farmers' cash expenditures increased 28.2 percent. Its major characteristics are that growth in expenditures for production investment exceeded that for daily consumption expenditures; and that educational and service expenditures exceeded those for daily consumption.

Production investments increased. Farmers' per capita expenditures for production increased 39.6 percent over the same period last year, investments in production increased, and apart from increased investments from an expanding scale of production, this was mainly influenced by natural calamities and inflation.

Expenditures for daily consumption have further increased. The per capita cash expenditures used by farmers for daily consumption increased 27 percent over the same period the previous year. Of these, consumption expenditures for purchasing food increased 20.1 percent, and expenditures for purchasing construction materials increased 20.3 percent. Expenditures for purchasing articles of use increased 27 percent. Farmers' purchase of durable consumer goods, such as bicycles, watches, televisions, tape recorders, washing machines and electric fans all increased by varying degrees.

The growth in expenditures for educational services has grown faster than that for daily consumption expenditures. From January to September, the expenditures for educational services grew 40.3 percent over the same period last year and 18.4 percent faster than the growth of expenditures for purchasing daily consumer goods.

The major problems now existing are that economic information and circulation channels do not suit the development of the rural commodity economy. Based on reports from some areas, many farmers now have cash, but are waiting and hesitant. And according to a survey of 62,330 households, by the end of September, the farmers' per capita cash in hand and deposits in banks and credit cooperatives had reached 85.73 yuan, an increase of 70.84 yuan, or 41.5 percent, over the beginning of the year.

Now places everywhere urgently need concerned departments to supply them with reliable information on developing production in order facilitate actively guiding the farmers in expanding production investments and developing production needed by society. Secondly, there are great difficulties and hardships in the lives of some farmers in many areas that have suffered natural calamities and reduced grain yields, and we must adopt timely measures and solve these problems satisfactorily.

12452
CSO: 4007/199

LIU GUANGYUN ADDRESSES MEETING ON FORESTRY

OW281136 Beijing XINHUA in English 0652 GMT 28 Apr 86

[Text] Xian, 28 Apr (XINHUA)--China's state tree farms are playing a vital role in boosting the country's tree cover and countering soil erosion, Forestry Vice-Minister Liu Guangyun told a meeting here.

He said China now had 4,100 state tree farms covering a total area of 51 million hectares, including 24 million hectares of forests--20 percent of China's total.

Each year, the farms plant 330,000 hectares of trees and add 30 million cubic meters of standing timber reserves.

The new forests they had planted over the past 30 years were protecting villages and reservoirs from sandstorms and soil erosion, Liu told the national meeting in this Shaanxi provincial capital.

The farms had also helped to improve tourist attractions. For example, Mount Tai in Shandong Province now had 11,300 hectares of pines and other trees compared with 130 hectares 30 years ago. The mountain attracts thousands of domestic and foreign visitors each year.

The tree farms were also helping to spread information about new growing techniques and superior strains of trees in rural areas.

The vice-minister noted that the income of state tree farms increased to 1,630 million yuan last year--10 times the 1978 figure.

/9274
CSO: 4020/302

NATIONAL

CALL TO DEVELOP FAST GROWTH HIGH-YIELD TREE FARMS

Beijing NONGMIN RIBAO in Chinese 3 Feb 86 p 1

[Article by Liu Guangyun [0491 1684 6663]: "Developing Fast-Growth High-Yield Tree Farms a Strategic Measure"]

[Text] China is a nation lacking in forests and short of lumber. There is a striking contradiction between the supply of lumber and the requirements of national construction and daily life. As socialist modernization proceeds, this kind of contradiction becomes even more acute. It can now be surmised that by the end of the century annual production of lumber will have only slightly increased over that produced during the Sixth 5-Year Plan and will be far from enough to satisfy the construction needs of the four modernizations. China, being a great nation in an era of rapid development, cannot in the long run rely on imported lumber to meets its vast needs. What is the solution? There really is only one, and that is to resolutely and unswervingly cultivate fast-growing, high-yield tree farms while revitalizing and developing existing forest areas in order to establish a new commodity base in lumber.

The establishment of fast-growing high-yield tree farms is an important trend in international forestry development. Brazil is a nation with vast forest resources; 500,000 mu, or 40 percent of the land, is woodland. Their forest reserves are 6- or 7-fold those of China. But because these forest reserves are mainly located in the north in the Amazon River basin and hence far from the areas of the south where industry and the economy are developing, the supply of wood for the paper industry is insufficient. But since the 1960's the southern areas have put a lot of energy into establishing fast-growing, high-yield tree farms. By 1984, after 18 years, 70 million mu have been planted, a yearly average of 3.9 million mu. It is planned that by the end of the century 315 million mu will have been established. Due to the development of fast-growing, high-yield woods, a large amount of timber is being furnished for paper products, which is in turn stimulating the expansion of the paper industry. Output of paper pulp was 450,000 tons in 1966; by 1984 it had increased to 3.4 million tons, with 1.67 million tons being exported and earning a great deal of foreign exchange to compensate for the entire investment cost of afforestation for 18 years.

New Zealand began establishing fast-growing tree farms as early as 1925. By 1960, having amassed 35 years of experience, the volume of lumber from these woods exceeded that from natural forests. In the last 20 years, they have set up more than 10 million mu of tree farms growing ordinary lumber. New Zealand's 15 million mu of tree farms is 14 percent of its total forest land. Moreover, each year 9.5 million cubic meters of lumber are cut from these tree farms, which is 95 percent of all lumber cut in New Zealand. Currently more than 80 percent of New Zealand's natural forests have been designated national parks, national forests, or natural preservations. These forests also help conserve water and soil, protect the environment, and provide vacation spots for everyone. Thus, throughout New Zealand national forests have become protective forests and manmade tree farms have become the suppliers of lumber. Italy and Chile have also obtained significant benefits from developing fast-growing, high-yield tree farms. Many nations that have traditionally relied on natural forests for lumber, such as Switzerland, Finland, Canada, and the United States have all adopted measures for the speedy development of fast-growing, high-yield lumber farms.

The majority of China's land is in the temperate zone. With more than sufficient land, an excellent water supply and enough heat, the natural conditions are present and hence many places would be suitable for the development of fast-growing, high-yield woods. During the Sixth 5-Year Plan, we successively established 107 state-run experimental tree farms in 115 counties in 19 provinces including Shandong, Shanxi, Hubei, Guangdong, Guizhou, Jiangxi, Guangxi, Liaoning, Hunan, Heilongjiang, Zhejiang, Anhui, and Sichuan; the results have been excellent. For example, in May 1982, Lingao County on Hainan Island started a 4,000-mu high-yielding eucalyptus farm; in 3 years time the average tree had grown to 7.2 meters in height and the average diameter was 6.2 cm. Each mu had timber reserves of 3.4 cubic meters. The Wangfeng tree farm in Xin County, Shandong planted 455 poplars; in 4 years of growth the average tree was 13.5 meters high and the average diameter was 22.3 cm. Each mu held 4.7 cubic meters of timber. In Shanxi, the Sanggan River high-yielding poplar farm experimental station's Mizhai section of the Jinshatan tree farm has a 335-mu high-yielding poplar woods that yields 6 cubic meters of timber per mu. Currently throughout the nation about 1 million mu are being utilized as experimental sites for fast-growing high-yield tree farms. Looking at the next few years realistically, we must continue unwaveringly with intensive management and implement scientific management so that each tree farm can reach its scheduled high production target. This is truly a possibility. According to rough estimates, China has about 400 million mu of land appropriate for cultivating fast-growing, high-yield woods. It merely requires strong measures and within a reasonable length of time the severe shortage of lumber in China can be resolved.

Drawing on domestic and international experience, it can be said that the development of fast-growing, high-yield lumber trees is a strategic measure in establishing China's forestry industry and it can be the breakthrough in solving the contradiction between the supply and demand for lumber. This is urgent for the construction of modernized socialism. Throughout China during the Seventh 5-Year many more fast-growing, high-yield tree farms will be started from scratch and also cultivated amidst fairly young and medium-aged forests. This is the first year of the Seventh 5-Year Plan. In areas with the proper conditions, the state, the collectives, and individuals must together advance toward and maintain high standards and high quality and quickly accomplish the various preparatory tasks in developing fast-growing, high-yield tree farms. Great progress can be made this year.

13030/9312
CSO: 4007/292

DEVELOPMENT OF TOWNSHIP, TOWN ENTERPRISES PROMOTED

Beijing NONGMIN RIBAO in Chinese 20 Dec 85 p 1

[Commentary: "Continue To Support the Development of Township and Town Enterprises"]

[Text] In recent years, the rise of township and town enterprises has already played a tremendous role in promoting the development of the rural economy and of increasing farmers' income. At the same time, their development has also met with many difficulties, and certain problems still remain. These difficulties and problems must be solved one by one, which is to say that we must continue to support the development of township and town enterprises.

The fact that we must support the development of township and town enterprises is not the subjective view of some individual, but rather, it is an objective requirement for developing rural productive forces. In 1984, the number of people employed in township and town enterprises reached over 52 million, and up to the present, they have settled over 60 million laborers. Where did these people come from? They came from rural surplus labor. After the responsibility system was implemented in the countryside, tremendous productive forces were released, farmers' labor productivity rose greatly, and at the same time, the industrial structure also began to develop and change. Therefore, about one-fourth of rural labor has already shifted out of farming, and most has shifted into township and town enterprises. The output value created last year by this labor reached 170.9 billion yuan, and this year it will be even more, clearly showing the important significance of transferring surplus labor.

But the existence of surplus labor in the countryside is still a common problem even today. According to surveys, the average laborer is responsible for cultivating only 4.3 mu of land, and at present levels of production, calculating the average laborer being responsible for cultivating 10 mu of land, half the labor in farming is still surplus labor. Extrapolating from this, there are about 100 million surplus laborers in the Chinese countryside. Of course, due to imbalances in economic development, the degree of surplus rural labor in various areas differs, with some surplus labor not amounting to 5 percent, and other reaching 80 or 90 percent. In addition, farmers still have times of surplus labor. The majority of surplus labor urgently needs to press ahead into new realms of production. Because if we do not open up new realms of production, the majority of farmers can only sit on their hands on a limited quantity of land. And speaking from the per capita standpoint, the wealth created will be less and it will not be possible for farmers to become rich or for the rural economy to flourish. If the countryside does not have accumulated funds or have industry to supplement farming, then agriculture will be limited in its efforts to develop. Therefore, the limitless amount of manpower used in farming must shift out into non-farming businesses. At present, forestry, animal husbandry and fishery are still weak links, and developmental production in these fields can accommodate a certain number of these farmers. But we cannot accommodate all surplus rural labor by relying solely on these fields, but must develop secondary and tertiary industries and develop township and town enterprises.

The rural industrial structure still requires continued adjustment, and with the development of agricultural mechanization and modernization, the labor productivity of farmers will grow higher and higher, and surplus rural labor will increase further. It is clearly unrealistic for all of these people to move into the big cities. And developing township and town enterprises can only create some densely populated market towns. But for farmers to engage in industry without going into the cities, to leave the land but not leave the village--this is combining industrial development with agricultural development, and this could well be the only path for China's urbanized development.

Viewed from the angle of developing productive forces, the active development of township and town enterprises is not only necessary now, but will be required for a fairly long time to come. We must adequately recognize this point. For only by adequately recognizing this point will we be able to adopt various measures such as first class scientific and technical talent to support the continued development of township and town enterprises.

12452
CSO: 4007/199

RENMIN RIBAO REPORTS ON CHANGES IN STATE FARMS

HK270510 Beijing RENMIN RIBAO in Chinese 22 Apr 86 p 2

[Report by Liu Ruiwu [0491 3843 2976]: "Reform Has Brought About Profound Changes in the State Farms"]

[Text] The reform of the economic structure of the state farms built on reclaimed wasteland in the country has effectively pushed forward the development of production and the continued increase of the economic results of the enterprises of such state farms. Over the past 5 years, the enterprises of the state farms built on reclaimed wasteland have achieved good economic results even though they have suffered serious natural disasters for 3 years. In 1985, the total industrial and agricultural output value of the state farms built on reclaimed wasteland reached 16.7 billion yuan, an increase of 69.2 percent over that in 1980, with profits exceeding 018 billion yuan. The per capita labor productivity of the state farms built on reclaimed wasteland reached more than 3,200 yuan, an increase of 61 percent over that in 1980. In 1985, the state farms built on reclaimed wasteland realized a simultaneous increase in output value, profits, and labor productivity.

Since 1979, the state has been implementing the financial contract system in the enterprises of the state farms built on reclaimed wasteland so as to enable these state farms to improve their management and administration and increase their economic results. Thanks to the financial contract system, over the past 7 years the enterprises of the state farms built on reclaimed wasteland have retained 4.88 billion yuan of profits. The financial contract system has not only increased the enterprises' capability to carry out self-transformation and self-development, but also solved the problem of "eating from the same big pot" in the enterprises. While carrying out the reform of the economic structure, the state farms built on reclaimed wasteland have also comprehensively carried out agricultural, industrial, and commercial operations and smashed the method of operation which stresses agriculture alone, so as to have gradually rationalized the internal production structure. As far as planting is concerned, the proportion of the area sown to economic crops has increased from 10.3 percent of the total sowing area in 1980 to 18 percent of the total sowing area in 1985. The output value of the forestry, animal husbandry, and aquatic products industry of the state farms built on reclaimed wasteland has increased from 1.75 billion yuan in 1980 to 2.63 billion yuan in 1985.

/9274
CSO: 4007/390

STATE AERIAL SEEDING PROJECT CONSIDERED SUCCESS

OW291108 Beijing XINHUA in English 1044 GMT 29 Apr 86

[Text] Yinchuan, 29 Apr (XINHUA)--Scientists have achieved considerable success in the aerial seeding of grass one of northwest China's many semi-desert areas, a meeting in this Ningxia Hui Autonomous Region was told.

Grass sown from planes can help reduce soil erosion and sandstorms, and restore vegetation to the loess plateau and other arid areas across eight provinces and regions, said scientists from Beijing, Shaanxi Province and Ningxia who attended the meeting.

Sponsored by the State Science and Technology Commission, the seeding research project involved the North-West Institute of Soil and Water Conservation attached to the Chinese Academy of Sciences, and authorities from Ningxia and Tongxin County.

They planted 1:090 hectares by plane in 1982 and 1983, including more than 600 hectares of milk vetch--a hardy grass ideal for arid areas--on the loess plateau, where annual rainfall is only 250 millimeters and where the evaporation rate is very high.

The new grassland now yields 6,550 kilograms of fresh grass a hectare a year, which is easing the local shortage of fuel, fertilizer and fodder.

The scientists also noted that the aerial-seeded milk vetch had begun to produce mature seeds, and could therefore regenerate.

Officials of the North-West Institute of Soil and Water Conservation said they planned to spread this technique to other arid areas as quickly as possible.

/9274
CSO: 4020/302

GRAIN PROCUREMENT FOR 1986 DISCUSSED

Beijing ZHONGGUO CUNZHEN BAIYE XINXI in Chinese 14 Dec 85 p 1

[Article by Cao Guangyu [2580 0342 1342]]

[Text] Recently, a spokesman for the Grain Procurement Bureau of the Ministry of Commerce, while explaining next year's grain contract purchase situation to this reporter, said: In 1986 the primary task for national grain procurement work is to continue to perfect contract procurement and make appropriate adjustments to the foundation created this year. Next year we plan to procure a total of 158 billion jin. In areas with the proper prerequisites, grain procurement contracts can be set for three years without change, and the remaining grain can continue to be purchased at the inverted three-seven ratio. In normal years, purchase contracts have the effect of law and must be fulfilled. When the grain storage problem was raised, this responsible person said that in places were it is necessary, next year we will continue to have "the people store grain for the state," that the state will pay 80 percent of the fee in advance to the households that store grain, and the rest when the grain is shipped, and the interest for the storage period will all be settled in one lump sum.

A responsible person with the Negotiated Grain Purchase and Sales Bureau of the Ministry of Commerce separately told this reporter that the guiding thinking for the negotiated purchase and sales of grain next year is as follows: under the planned guidance of the state, we must actively take part in market regulation, adjust surpluses and shortages, enliven the market and keep prices down. Next year the amount of grain handled through negotiated purchase and sale will be slightly more than this year, and grain used in transportation (including train stations, docks and airports) and in the travel industry will all switch to being supplied at negotiated prices.

12452
CSO: 4007/199

PREVENTION OF CROP DISEASE DEPENDS ON FORECASTS

Importance of Forecasting

Beijing NONGMIN RIBAO in Chinese 9 Dec 85 p 3

[Commentary by Lai Yannan [0171 3508 0589]: "Prevention of Crop Disease Depends on Disease Forecasts"]

[Text] Agricultural disease forecasts are extremely important and disease reports are vitally important in the struggle against rust, pests, weeds, and rats. Scientifically preventing crop diseases is a necessary and fundamental forward step in the modernizing of agriculture.

The results of 30 years of crop disease forecasting work in our country show that good work has been done, but we can greatly strengthen anticipation and planning in crop-disease prevention. We can also carry out prevention work more economically, safely, and effectively. We can substantially increase the economic, ecological, and social benefits of crop-disease prevention.

In spring of 1985, early reports by the governor of Gansu Province, who discovered severe wheat rust, resulted in timely control work which prevented losses of approximately 100 million jin of wheat. In 1985, the Zhejiang Province Jiaxing City crop-disease control post accurately predicted local late rice blight when this was still only a minor problem and indicated that 2 million mu of rice paddies did not need pest control, thus saving 1.3 million yuan in pesticide expenditures. The Hunan Province crop-disease control post carried out a general disease forecast survey, which showed that the province's paddy fields have 60 classes and 321 species of natural predator insects which prey on destructive insect pests, as well as 18 classes and 130 species of spiders. They used spiders to control flying lice, rice-juice cicadas, and other pests. They established a reasonable spider-insect ratio and within a certain area used natural prevention well enough to make pesticide use unnecessary.

At present, all the agriculturally advanced countries consider crop disease forecasting to be a vital part of overall ecological protection and regard it as highly important. Crop disease forecasting work in our country has made significant advances and we have received worldwide recognition for using "model telegrams" and microcomputers in forecast work. However, the

Seventh 5-Year Plan is placing even more stringent requirements for the development af agricultural pest forecast work. We still have to do a lot of work to improve the staff involved in crop disease prevention, raise the technical level, and improve the quality of service.

All levels of leadership must stress crop disease forecasting work because this work not only improves this season's yields, but also is an indispensable part of long-term plans for agricultural production growth. The agricultural masses should also have an understanding of crop-disease prevention so that they can be a partner and guide in carrying out scientific agriculture.

How To Forecast

Beijing NONGMIN RIBAO in Chinese 9 Dec 85 p 3

[Article by Jiang Ruizhong [1203 3843 0022]: "How To Forecast and Analyze Wheat Rust Diseases"]

[Text] Wheat rust breaks out in China's principal wheat-producing areas each year. This year an area of over 5 million mu was affected by the disease, posing a serious threat to wheat production. As far as plant pests are concerned, those which spread over a large area usually fulfill three conditions: the variety suffering from the disease is planted over a large area; disease fungi are very infectious and very numerous; and climatic, cultivation, and environmental conditions help the disease fungi to resist extreme temperatures, infect the plants, multiply, and spread, while making it hard for the crops to resist the disease. An analysis of reasons for the spread of wheat rust this year shows the same situation. According to statistical analyses for the principal wheat-producing districts, varieties affected by the blight covered 70 percent of the wheat fields, and in Gansu Province this reached 80 or 90 percent.

The second cause is that the infectiousness of the rust fungi was continually in evidence; it is highly infectious to all the major domestic varieties of wheat. Third, last year's infected sprouts survived the relatively low summer temperatures last year, helping rust organisms to survive the summer and produce severe rust problems in the fall; winter temperatures were unseasonably high and rain and snow were relatively abundant. In Western Guanzhong, Shaanxi Province, and Longding, Gansu Province, the period of snow accumulation was 50 days longer than usual, greatly increasing the number of rust fungi surviving the winter. After the beginning of spring this year, the great majority of wheat-producing districts had early rains, April and May rain volume was rather higher than last year, and there were many overcast and rainy days, producing favorable conditions for the rust to enter plants, develop, and spread. Thus, this year, many winter and spring wheat areas suffered early infection, rapid spread, large extension of affected areas, and in some places very prevalent damage. The blight this year was the most extensive in almost 20 years. However, all the crop-disease control posts promptly announced disease forecasts and supplied timely, reliable information on how to combat rust diseases. They actively carried out rust-prevention work and obtained favorable results. In Gansu Province alone, powders were used to stop rust in 1.05 million mu, thus preventing the loss of 100 million jin of wheat.

In the future, the severe threat of rust damage to wheat production will continue to exist, and each area must carry out extensive inspection, forecast, and reporting work.

9990/12955
CSO: 4007/287

NEW LAW TO CONTROL PESTICIDE INDUSTRY

HK241003 Beijing CHINA DAILY in English 24 Apr 86 p 1

[Article by staff reporter Guo Zhongshi]

[Text] China's first pesticide law is being drafted to introduce stricter controls over the industry, which is suffering from poor management and lack of co-ordination.

The new law marks a significant step forward in the development of the industry and "in the establishment of an overall co-ordination of its production, management and sales," an official told CHINA DAILY yesterday.

Zhang Chunjuan, head of the registration department under the Institute for Control of Agrochemicals, said pesticides would be licensed in a bid to curb over-production.

The drafting committee, formed by representatives from 14 ministries and bureaus, also suggested at a meeting yesterday that the management of pesticides and the establishment of pesticide enterprises be licensed.

China has more than 800 small pesticide factories, some of which were set up by local authorities without any overall planning. The over-development of the pesticide industry "has caused confusion in national pesticide management and harm to farmers," Zhang said.

A committee source told CHINA DAILY the new law would help prevent malpractice and the misuse of dangerous pesticides.

Zhang also noted that "most Chinese people have a higher rate of pesticide residue contamination in their body than people in many developed countries."

However, she said, the country has stopped production of some pesticides which may cause health and environmental hazards and "is developing high-efficiency and low-contamination pesticides instead."

The country has experimented with a new type of contamination--and fertilizer-free vegetables. [as published] Trial production has proved successful and the vegetables are expected to reach the markets soon.

Last year, China produced 220,000 tons of raw pesticides, but this year, the figure is expected to drop due to a general decrease in pest problems, the large importation of pesticides and the switching of farmers' attention to non-agricultural production, Zhang said.

A Tianjin pesticide factory stopped operation for a whole month last year because of the drop in demand in the domestic market.

Last year, the country imported 205,000 tons of pesticides, but the amount will drop this year, mainly because the country's own products are catching up with the world advanced standard in quality, a committee official said.

Zhang Huaqin, representative from the Ministry of Transport and Communications, said his ministry was ready to devote special efforts to improving the transport of pesticides.

Besides calling for better packaging of pesticides, the ministry would also ensure pesticides were kept separate from other cargos during transportation, he said.

Cao Xiaoqi, of the State Industrial and Commercial Administration, called for a general management of pesticides, directing production, inspecting sales and controlling management.

"At a time when the free markets are growing, and when a large portion of vegetables on dinner tables are bought, we should set up more inspection organizations to ensure that the vegetables contain low pesticide residues," he said.

/12766
CSO: 4020/295

400 MILLION YUAN EARMARKED FOR DISASTER RELIEF

HK220828 Beijing CHINA DAILY in English 22 Apr 86 p 1

[Article by staff reporter Liu Dizhong]

[Text] The government has earmarked more than 400 million yuan for relief of disasters caused by drought, wind, hailstorms and frosts since the beginning of this year.

The wind and hailstorms, mainly sweeping Jiangxi, Hunan, Hubei and Zhejiang provinces, claimed 169 lives, injured 3,415 persons, destroyed 17,000 homes and damaged more than 83,000 hectares of farmland.

The frosts in Yunnan and Inner Mongolia caused the deaths of 14 persons and 26,000 farm animals, and damaged crops on half a million hectares.

But the most serious crop damage was caused by drought, which affected 12 million hectares of farmland in Guangxi, Yunnan, Shaanxi, Henan, Shanxi, Anhui, Xinjiang and Guizhou, Yao Jinming, head of the Relief Bureau of the Ministry of Civic Affairs, toid CHINA DAILY.

However, he said, natural disasters so far this year were not as serious as in the same period of previous years and crops are doing well in most provinces.

This year, China seeded 28.8 million hectares with summer grain, 157,000 hectares more than last year, thus reversing the shrinkage of land devoted to grain of the last few years.

Natural disasters this year, Yao said, also included some earthquakes--near Kashi in the Xinjiang Autonomous Region, in Dedu County of Heilongjiang Province, and in Heqing County and Qiaojia County of Yunnan Province.

The four earthquakes each registered about five on the Richter scale. No casualties were reported, Yao said, but a number of houses were damaged.

Yao said it was rare for some southern provinces to have such strong wind and hailstorms in spring. For instance, hail and a wind of 10-force (about 95 kilometres an hour) swept 31 cities and counties of Hunan Province on April 10 and 11, claiming 32 lives and injuring 1,563.

Yao said his ministry has allocated more than 412 million yuan of this year's relief funds, or about half of the year's disaster budget.

Since 1979, the annual State budget for disaster relief has been around 600 to 800 million yuan. Last year, it was 1.3 billion yuan owing to floods in the three northeastern provinces. That did not include additional allocations for such things as cement, timber, steel drainage equipment, farm tools and other building materials.

As part of its efforts to improve relief work, the Ministry of Civic Affairs gave special help to rural residents of 146 counties that are comparatively poor and frequently afflicted by disasters. In the past two years, it has allocated 150 million yuan to help these counties develop their local economy by establishing various enterprises, such as transportation, processing, mining and handicrafts.

Yao said more than 11,700 such enterprises were set up, employing about 150,000 people from poor families with per capita income between 100-150 yuan.

Last year, output of these enterprises was valued at more than 620 million yuan, earning profits of 170 million yuan.

To improve relief work, Yao said his ministry has been seeking close ties with United Nations Disaster Relief office and exchanging experiences with other countries.

/12766
CSO: 4020/295

NATIONAL

AGRICULTURAL INSURANCE DISCUSSED, APPLAUDED

Beijing NONGMIN RIBAO in Chinese 29 Nov 85 p 1

[Article by Li Yingjiao [2621 5391 2638]]

[Text] This has been a year of many natural disasters for China, and it has fully shown the compensatory function of insurance in the broad countryside. Typhoons created flooding and waterlogging over wide areas of Liaoning, Heilongjiang, Jilin, Shandong and Zhejiang, and insurance companies paid more than 200 million yuan in indemnities, helping these stricken areas to rapidly restore production and rebuild homes. The many farmers in the stricken areas praise insurance companies as "a trade that resists disaster, a trade that boosts one's courage and a trade that safeguards getting rich."

The statistical data made public by the National Rural Insurance Work Conference which concluded on the 27th in Chengdu shows that the rural insurance industry has already developed on a broad scale throughout the country (except Tibet). By the end of September, 11 billion yuan worth of agricultural crops and six million head of domestic animals had been insured and 103 fields in the ten major areas of agriculture, forestry, animal husbandry, sideline occupations, fishery, industry, commerce, transportation, construction and service have been supplied with insurance. This large scale rural insurance industry is unprecedented in the history of China's insurance, and it has already drawn the attention of many countries throughout the world (including some economically developed countries).

This conference pointed out that we must strive to find a compensation route for the rural economy with Chinese characteristics within the 7th Five Year Plan in order to contribute to the quadrupling of agricultural output.

12452
CSO: 4007/199

BRIEFS

DRINKING WATER AVAILABILITY--Beijing, 23 Apr (XINHUA)--According to statistics released by the Ministry of Water Conservancy and Electric Power, China made drinking water available to 7.15 million peasants and 4.35 million head of livestock in 1985, a year in which most work in this area is accomplished since the liberation of China. The drinking water problem of 150 million people and 87.4 million head of livestock still remains to be solved. All provinces, municipalities, and autonomous regions have regarded work in this area as an important task in assisting impeverished regions. Due to the completion of a great number of water conservancy projects in past years, the drinking water problem of some 80 million people and 42.78 head of livestock had been solved by the end of 1985. [Summary] [Beijing XINHUA Domestic Service in Chinese 1150 GMT 23 Apr 86 OW] /9274

RECORD SUGAR OUTPUT--Beijing, 23 Apr (XINHUA)--By mid-April, China's sugar output had reached 4.8 billion metric tons for the 1985-86 sugar production period. Total output for the whole period may increase by 11 percent over the previous production period and reach a new record, according to the ZHONGGUO QINGGONGYE BAO [CHINA LIGHT INDUSTRY JOURNAL]. [Summary] [Beijing XINHUA Domestic Service in Chinese 1426 GMT 23 Apr 86 OW] /9274

SCIENTISTS, TECHNICIANS URGED TO HELP PEASANTS--Beijing, April 23 (XINHUA)--Chinese scientists and technicians are encouraged to go to the countryside to help China's 800 million peasants improve their commodity production. Twenty provinces, municipalities and autonomous regions reported to have so far sent at least 200,000 technicians into rural areas. The drive follows a call by Communist Party General Secretary Hu Yaobang in February that scientists and technicians should work in underdeveloped regions to help the peasants there escape from poverty. Beijing economists believe the drive will help boost China's annual grain output and bring about a breakthrough in rural commodity production to which the updating of agrotechnique is crucial. The Agricultural University of Hebei Province has helped peasants in the Taihang Mountains area where nearly one-third of the population have not solved their problems of food and clothing quadruple their incomes over the past few years. Thanks to the use of new technology, an additional profit of more than 300 million yuan was reaped during the period, compared with an investment of only 7 million. Similar results have also been achieved in Sichuan, Shandong and Yunnan Provinces. Agrotechnicians in Guizhou Province plan to train a million peasants this year. And 800,000 peasants in the province are studying in night schools. [Text] [Beijing XINHUA in English 0822 GMT 23 Apr 86 OW]/12766

GRAIN PRICES INCREASE--Based on statistics of 170 urban markets by the State Administration of Industry and Commerce, grain prices have increased this year. In the beginning of March, compared to the same period last year, the average increase was 19.35 percent. Grain prices have increased 19.55 percent in rural areas, and 19.14 percent in urban areas. The price of corn has increased the most, in rural areas it has increased 25.81 percent on average, and in urban areas 20.77 percent. The price of rice has increased 20.17 percent in rural areas and 17.5 percent in urban areas; the price of wheat has increased 12.61 percent in rural areas. From January to the beginning of March, grain prices have flucuated. For example, in the beginning of January the average price of rice in urban markets was 0.71 yuan per kilogram, and rose to 0.75 yuan. In February, it dropped to 0.74 yuan; in the beginning of March it rose to 0.78 yuan. The price of wheat in rural markets began to rise in the middle of January, the avearge price rose from 0.48 yuan per kilogram to 0.50 yuan, in February it dropped to 0.49 yuan, and in March it rose to 0.51 yuan. Regions with the greatest increase are: Guizhou 33.84 percent, Nei Monggol 33.03 percent, Guangxi 30.62 poercent, Henan 25.98 percent, Jiangsu 23.56 percent, Shaanxi 22.1 percent, and Hunan 21.77 percent. Regions with the smallest increase are: Hubei 6.4 percent, and Jilin 1.41 percent. Grain prices in other provinces and municipalities have increased about 15 percent. [Text] [Beijing NONGMIN RIBAO in Chinese 10 Apr 86 p 2]

CSO: 4007/382

TRANSPROVINCIAL AFFAIRS

SOIL CONSERVATION FOR HUANG HE VALLEY URGED

OW260644 Beijing XINHUA Domestic Service in Chinese 0119 GMT 25 Apr 86

[Text] Beijing, 25 Apr (XINHUA)--The general office of the State Council on 10 April transmitted a "Report on Improving Water and Soil Conservation in the Middle Reaches of the Huang He" by the Rural Policy Research Center of the Central Secretariat and the National Coordination Group for Water and Soil Conservation. The general office of the State Council called on the People's Governments of Shaanxi, Gansu, Shanxi, Qinghai, and Henan Province and Ningxia and Nei Monggol Autonomous Regions and the departments concerned under the State Council to seriously study and implement the report.

The general office of the State Council issued a circular on this matter. The circular points out that agricultural development has been slow for a long time in the middle reaches of the Huang He, located on a loess plateau. One of the important reasons for the slow development is serious soil erosion that worsens the local ecological environment. Efforts to improve the situation of this region must begin with controlling soil erosion. This is an important task affecting the well-being of future generations. It is not only a fundamental measure for harnessing the Huang He, but is also of great significance to economic development in the middle reaches of the Huang He and to flood prevention on the Huang He-Huai He-Hai He Plain.

The circular calls on all localities to follow "Regulations on Water and Soil Conservation" promulgated by the State Council, strengthen their leadership, formulate overall plans, and adopt effective measures to control and prevent soil erosion.

The report by the Rural Policy Research Center of the Central Secretariat and the National Coordination Group for Water and Soil Conservation describes existing problems of water and soil conservation. It suggests that the water and soil conservation work in the middle reaches of the Huang He be included in state and local plans. It also puts forward concrete opinions on how to further clarify and implement relevant policies: 1) Because the jobs to improve small sections of land, jobs contracted out to private households, are long-range projects or projects of a developmental nature it is suggested that the contract period be extended to 30 to 50 years or even a longer period, and that contractual rights be permitted to be bequeathed to one's descendants or sold to others. 2) Local authorities may stipulate that each working person should contribute a certain amount of labor to water and soil conservation, but the labor contribution should be in a proper amount, and not excessive. 3) Cropland with a slope of more than 25 degrees should be converted for other purposes according to needs and feasibility step-by-step in a planned way, and the original tillers may turn the land into forest or pastoral land for long-term operation and may bequeath it to their descendants. Provinces and autonomous regions may issue, according to their financial ability, some sapling subsidies to localities which indeed have difficulties in using the converted land. They should also make overall arrangements for solving the grain shortage problem in a few localities where soil erosion is so bad that cropland must be converted for other purposes as soon as possible.

The report also urges the provinces and regions in the middle reaches of the Huang He to strengthen their leadership, improve their water and soil conservation agencies, stabilize the work force for water and soil conservation, and accelerate the training of specialized personnel for soil and water conservation.

/9274
CSO: 4007/390

PROVINCE BECOMES MAJOR GRAIN EXPORTER

Hefei ANHUI RIBAO in Chinese 16 Dec 85 p 1

[Article by Wang Likuang [3769 4409 6315]]

[Text] One of the clearest indicators of the rapid development of the rural economy during the Sixth 5-Year Plan for Anhui province, which took the lead in implementing the responsibility system tying pay to production in China's reform of its rural economy, is that its farmers have not only solved the problem of their own ration grain, but have also broadly increased the amount of commodity grain which they provide the nation. In 5 years, we sold over 15 billion jin of unprocessed food grains outside the province, making Anhui a major commodity grain exporter.

In the latter part of the Fifth 5-Year Plan, the responsibility system was broadly implemented throughout the Anhui countryside, and after entering the Sixth 5-Year Plan, the cadres and the masses throughout the countryside organically combined the motivation aroused by the series of party policies, knowledge centered on scientific planting, the potential for giving full play to natural advantages and the actual strength created by the capital construction carried out in the fields over the past few 5-year plans in order to enable the province's agricultural production, and especially its grain production, to show an excellent situation seldom seen in the past. Under these circumstances the cadres and broad masses steadfastly took control on grain production and did not relax, even while they adjusted the rural industrial structure.

Grain production steadily developed and along with it, the grain commodity rate also increased a lot, so that while in the 1980 grain year, there were only 30 counties that supplied over 100 million jin of grain, in the 1984 grain year, the the number had increased to 54. Last year, the province purchased 16.7 billion jin of grain, with each farmer contributed 1.4 times more grain to the state that in 1980.

During the Sixth 5-Year Plan, Anhui's total grain yield increased over 47 billion jin over the Fifth 5-Year Plan, surpassing total grain yield produced in one year. Apart from satisfying the needs of the province, this additional grain is also sold to other provinces in a steady steam, aiding our brother provinces, cites and autonomous regions. By the end of this November, the amount of unprocessed grain sold to other provinces during the Sixth 5-Year Plan reached over 15 billion jin, an increase of over two-fold over the Fifth 5-Year Plan.

There have been great changes in the structure of grain sold to other provinces by Anhui. A lot of the grain sold in the past was dried sweet potatoes but now, nearly all are fine grains, such as paddy rice and wheat. This year, the province shipped out 2.8 billion jin of rice and wheat.

12452
CSO: 4007/200

ANHUI

SUCCESS OF RICE MARKET PROMOTES DEVELOPMENT

OW261740 Beijing XINHUA in English 1437 GMT 26 Apr 86

[Text] Hefei, 26 Apr (XINHUA)--The Wuhu rice market, once one of the four-biggest rice trading centers in China, is back in operation after suspension for over three decades, according to local officials.

State, collective and private grain shops in Wuhu, a city 150 km south of the capital of Anhui Province, handle both wholesale and retail sales, while peddlars sell sacks of rice in streets.

People from all parts of China have negotiated on rice sale and purchase since the market resumed in July 1984. More than 100,000 tons of rice were shipped from here to northeast and northwest China and coastal provinces last year. The rice market has also attracted businessmen from France, Egypt and Hong Kong.

"Thanks to the current reform, the traditional rice market has become prosperous again," a local official said.

Wuhu became a big rice trading center 110 years ago, as the city is connected with five provinces by the Yangtze River and the 28 counties around the city produce large quantities of surplus food grain.

During peak periods, thousands of businessmen from various parts of China flocked to the market and 200,000-400,000 tons of rice a year changed hands.

However, the rice market disappeared in the early 1950's when China adopted mandatory purchasing of farm produce to ensure the supply to urban areas.

Good harvests and grain surpluses in recent years promoted the resumption of the trading center after China implemented flexible rural policies in 1978.

Peasants complained difficulties on marketing grains in recent years as the state could not purchase so much.

Reopening the rice market provides a new channel for peasants to sell surplus grain at negotiated prices.

Liu Shaoqing, a peasant in Nanling County, told the reporter that his family of nine planted 10 hectares of rice last year and harvested 50 tons of rice. The family earned an income of 10,000 yuan last year--fairly high compared with the average rural income.

"With this trading center," Liu said, pointing to his tractor loaded with sacks of rice, "we can earn more by producing more rice."

Local officials said that peasants can sell quality rice at a price 6-12 fen (cents), or one-third of a half higher than the state-fixed price.

The price disparity has spurred the enthusiasm for producing quality rice. This spring, local peasants purchased 1,000 kg of fine seeds from the market every day.

A provincial official said that during the Seventh 5-Year Plan (1986-1990), the land devoted to growing quality rice in the 20 counties around Wuhu will be expanded to one million hectares. The area is expected to earn 200 million U.S. dollars by exporting 500,000 tons of quality rice by 1990.

The prosperity of the rice market has also promoted the development of food processing, feed production and other industries in Wuhu City and its surrounding areas, local officials said.

For example, a distillery in the city had run at a loss for years because its raw materials used to be in short supply. After the reopening of the rice market, the factory began to reap profits as it can purchase the raw materials at any time.

/9274
CSO: 4020/302

HAINAN AGRICULTURAL DEVELOPMENT DISCUSSED

Guangdong NANFANG RIBAO in Chinese 2 Jan 86 p 1

[Article by Zeng Qingsong [2582 1987 2646]]

[Text] The provincial party committee and the provincial government place great importance on developing agricultural resources in Hainan. From December 18-24, 1985, Ling Botang, lieutenant governor of Guangdong led the province's farmers and responsible comrades of various departments and bureaus to Hainan to investigate and study the issues of how to give full play to its natural advantages and how to hasten the pace of its agricultural development. Through investigation and study, they presented many constructive opinions and also decided to help Hainan construct a series of production bases and production projects in the areas of manpower, materials and finance.

Accompanying Ling Botang to Hainan in his investigation and examination of the agricultural economy were responsible cadres of concerned departments such as the provincial agricultural committee, the Hydroelectic Department, the Institute of Agricultural Science, the Department of Forestry, the Bureau of Aquatic Production, the Bureau of Rural Enterprise, the General Bureau of Agricultural Reclamation, along with those of the Finance Department, the People's Committee, and the Agricultural Bank, totally 22 people. Separately, they went down and carried out investigations and examinations in every county (city), state farm and the sites of 16 key agricultural develop projects, and made contact and came to understand the situation in various fields such as agricultural, tropical crops, forestry, hydroelectricity, aquatic production, village enterprises, animal husbandry and science and research, and on the 24th, the party and government leaders of Hainan district and autonomous prefecture convened a meeting for reporting back on their investigations and examinations at Haikou. Comrade Ling Botang spoke on how to develop Hainan's advantages, conquer disadvantages and hasten the pace of developing Hainan's agricultural economy.

Ling Botang said that Hainan's advantages are having a lot of land, broad mountain areas, extensive water surfaces and a good climate. Its disadvantages are a weak production base, a low technological level, scarce funds and backward management. If we want to take advantage of our advantages, then we must promote the benefits of the mountains and the sea, and spread the advantages of "sole entrepreneurs." We must emphatically develop tropical cash crops and [aquatic] cultivation. and set up a series of commodity production bases. At the same time, we must set up an industrial production system centered around agriculture, and develop processing, transportation, freshness preservation and storage industries, and so enable agricultural products to increase in value and increase economic income.

When the provincial work groups went to Hainan this time to investigate and examine the situation there, discussing while observing and making final decisions on site. They have already decided to help Hainan in the areas of manpower, materials and finance as it handles 25 production base and production projects. Some of the larger ones are the establishment of 50,000 mu winter melon production bases in Lingshui, Sanya, Dongle and Dongfang counties and municipalities, and the development of a 40,000 mu river-fense aquatic cultivation base along Hainan's coastal shoals. They are making strenuous efforts to start the three hydroelectric stations of Yanyuan, Wuzhishan and Youyi in 1986. In addition, apart from continuing to give 55 percent of profits to local areas, the provincial General Bureau of Agricultural Reclamation has also decided to give five million yuan in free support to the local areas for developing citizen run banana and other tropical crop production. Ling also clarified principles for handling controversial problems between concerned state farms and forests and concerned local rural areas, emphasizing that the concerned departments should take responsibility for putting them into effect.

12452
CSO: 4007/200

BRIEFS

STABLE COMMODITY PRICES--Due to the fact that the governments at all levels have stepped up comprehensive measures to deal with problems on the basis of last year's price reforms and ensured ample supply of commodities for the markets, retail prices have been basically stable in the province's urban and rural markets during the first quarter. According to data from the provincial Statistics Bureau, the retail price index in January was about the same as in December. In February, the busy sales month of the spring festival, the index rose by 0.7 percent over January. The average price of rice, which was 0.7 yuan per kilogram at the end of last year, rose by 4 percent in January and a further 4 percent in February. By the middle and end of March the price was stable at 0.76 yuan. The market price of peanut oil has fallen month by month. The March price was 4.42 yuan per kilogram compared with 4.49 yuan in January. The retail price of pork handled by state food departments was 4.58 yuan per kilogram in January, 4.61 yuan in February, and 4.46 yuan in March. The lean pork price has been stable at about 6.58 yuan per kilogram. The retail price index for vegetables in January was 25 percent below December and dropped a further 12.4 percent in February. Prices rose in mid-March with the onset of the slack season, but were lower than in the slack season last spring. [Excerpts] [Guangzhou Guangdong Provincial Service in Mandarin 1000 GMT 22 Apr 86 HK]/12766

CSO: 4007/381

GUANGXI

BRIEFS

WORLD BANK LOANS--For the past 2 years, the World Bank has provided U.S.$50 million in loans to Guangxi to develop planting, breeding, raising domestic animals, and processing. At present, Guangxi has used U.S.$10,170,000 in loans to develop subtropical fruit production. These loans have been allocated to 29,000 specialized households in 60 counties and cities, 95 percent of the loans have been used to develop orange and tangerine production. At present the region has set up 39 orange bases, 136,000 mu has been planted to mandarin oranges, tangerines, and oranges, more than 8 million trees have been planted, and 13 fine variety orange nurseries have been set up. Each area is also using the funds to support the planting of 9,000 mu and 360,000 tress of pomelo, lychee, and longan and 13 storehouses will be built to preserve the fresh fruit. [Text] [Beijing RENMIN RIBAO (OVERSEAS EDITION) in Chinese 5 Apr 86 p 3] /9604

CSO: 4007/386

GUIZHOU

BRIEFS

CHEMICAL FERTILIZER PRODUCTION--The stagnant situation and reduction of chemical fertilizer production in our province in the past 2 years has ended and a turn for the better can be seen. Since the beginning of this year, production and sales of chemical fertilizers throughout the province has been brisk and production enterprises full of vitality. This is the result of the provincial government's implementation of a policy on supporting the small phosphate fertilizer and nitrogenous fertilizer production enterprises. In December of last year, the provincial government held a special conference to formulate a relevant policy on supporting chemical fertilizer production: 1. The government will subsidize from its revenue the freight and miscellaneous expenses of the small phosphate fertilizer and nitrogenous fertilizer enterprises in delivering goods to the grassroots. 2. The medium-sized chemical fertilizer plants, including the county and township chemical fertilizer plants, will be given preferential treatment by exempting them from their product tax and by allowing them to retain all their profits. In addition, to lighten the economic burden of peasants in buying chemical fertilizers, it has been provided that all grassroots selling points must reduce the selling price of phosphate fertilizer by 30 yuan a ton. Through the implementation of the above-mentioned policy, the burdens of chemical fertilizer enterprises and peasants have been lightened and their enthusiasm for production and consumption aroused. [Excerpt] [Guiyang Guizhou Provincial Service in Mandarin 2300 GMT 10 Mar 86 HK]/12766

CSO: 4007/381

RURAL CONSTRUCTION PROGRESSES IN SIXTH 5-YEAR PLAN

Shijiazhuang HEBEI RIBAO in Chinese 21 Jan 86 p 1

[Article by Zhang Yu [1728 3768]: "Sixth 5-Year Plan Rural Construction Accomplishments in Our Province"]

[Text] During the Sixth 5-Year Plan, our province has made great progress in rural construction. First, in areas where squatter housing had been built without permits or planning, a provincewide draft plan has been completed for regulating and controlling construction. By September, 1985, 3 months ahead of schedule, all towns and 97 percent of all villages had attained all the regulatory objectives of the Sixth 5-Year Plan. Comparing the land area occupied by villages before and after implementation of this plan, approximately 2 million mu of land have been recovered. Overall, village planning has basically attained satisfactory results, saving land and pointing out realistic construction objectives for the short term. Second, living space for agricultural households has increased and living conditions have been improved. From 1981 to 1985, the area of rural housing units constructed exceeded 230 million square meters of floor space, and rural public buildings constructed amounted to 6 million square meters. This all exceeded the goals set by the Sixth 5-Year Plan and even exceeded total rural construction during the preceding 30 years. Every year, 600,000 rural households in Hebei have the pleasure of moving into new homes. Third, while all areas are building many new housing units, they are also improving some vital service installations, public facilities, and cultural institutions. Development of rural water supplies has been especially rapid; over one-half of all farmers now get clean, safe water and some counties, townships (towns) and villages now have running water for all residents. In rural areas, 27,000 km of paved roads have been built, and over 90 percent of township government buildings are now accessible by highway. In several villages and towns, electric power and telecommunications have been developed; in addition, methane and solar energy are being put into use. Many places (municipalities) and counties have started to construct rural cultural establishments, producing a noticeable change in the appearance of rural areas.

9990/12955
CSO: 4007/287

VARIETY OF AGROTECHNICAL SERVICES INTRODUCED, EXPANDED

Shijiazhuang HEBEI RIBAO in Chinese 9 Jan 86 p 1

[Article by Wang Wudai [3769 0063 1486] and Xin Dexiang [6580 1795 4382]: "From 'Examining Patient' to 'Prescribing Medicine'; Province's Rural Agrotechnical Service Enterprises Offer Many Kinds of Services"]

[Text] During 1985, Hebei township and village level agrotechnical general service enterprises have embraced structural readjustment, actively opening new areas of service and expanding the number of services offered. According to partial statistics, there are already 41 kinds of services being offered. These include new agricultural technology, 15 kinds of new products, and 26 kinds of supply, sales, savings, transport, and processing services, all of which are stimulating the development of agricultural productivity.

After the villages implemented the family-related production contract responsibility system, following directives from the provincial agricultural bureau, every area has restructured the original communal agrotechnology advancement centers and established township and village agrotechnical general service companies which are to be directly responsible for services to thousands of households. Last year, Hebei had already established some 3,100 township-level agrotechnical general service companies, taking care of over 84 percent of all townships and employing some 12,100 technical service personnel. The number of village-level agrotechnical general service companies rose to over 8,900, involving 18 percent of all villages, and the number of technical service personnel was over 16,800. The great majority of these service company technical personnel are farmers with a certain level of scientific and practical expertise. They have both theoretical knowledge and practical experience. They can "examine the patient" (solve technical problems), "prescribe medicine" (supply good seeds, chemical fertilizers, pesticides, agricultural tools, etc.), and "cure the patient" (help farmers prevent and cure crop diseases, stop insect damage, and repair farm machinery). Since they also help farmers to market their products, their assistance is highly appreciated by the farmers.

9990/12955
CSO: 4007/287

HEILONGJIANG

BRIEFS

POTATO RESEARCH AGREEMENT WITH CANADA--On 16 April, an agreement with the Canadian Government providing support to the Heilongjiang Keshan potato research project was officially signed in Beijing by a representative of the Canadian International Development Office and a representative of China's Ministry of Foreign Economic Relations and Trade. The Canadian Government will give gratis aid of 1.41 million Canadian dollars to the province to support this project. The aid period will last for 5 years. During this period the Canadian side will send experts to the province to give guidance and guide the research work, and will provide the necessary equipment and help the province train specialized personnel. This project will be carried out in the Keshan Potato Research Institute of the provincial Academy of Agricultural Science. A four-member delegation of the Canadian International Development Office headed by (Mark Katalachaerpu), director of the Canadian International Development Office, visited our province on 19 April. During its stay in the province the delegation inspected the previous Canadian-aided project for dairy cattle breeding and [words indistinct] project, and gave guidance in this regard. The delegation was satisfied with the progress of these two projects and expressed the determination to carry out further cooperation with the province. [Text] [Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 26 Apr 86 SK] /12766

CSO: 4007/381

HUBEI ISSUES URGENT CIRCULAR ON FIGHTING DROUGHT

HK240920 Wuhan Hubei Provincial Service in Mandarin 1100 GMT 20 Apr 86

[Excerpt] On 20 April, the provincial government held a special meeting in which it analyzed the present drought situation in rural areas and formulated future plans for countering the drought. It urged all localities throughout the province to make persistent and concerted efforts to accomplish quickly and without reducing the area or degrading quality, the work of quickly transplanting early rice, raising seedlings and preparing the soil for middle-season rice.

Last winter and this spring, the province's total rainfall was less than before. Many places are facing the problem of a spring drought. Most of the province's localities, particularly the major production areas of commodity grain on the Jianghan Plain, are affected by a serious drought. According to the weather forecast of meteorological departments, there is presently no sign of heavy rainfall. Thus, the work of carrying out an in-depth fight against drought, as well as insuring a quick transplant of the early rice, seedling raising and soil preparation for the middle-season rice has become the key to this year's goal of reaping a bumper agricultural harvest. Therefore, the provincial government urged:

First, we should further mobilize the masses and carry out in an in-depth manner the fight against the drought.

Second, we should try our best to strive to solve the problem of insufficient power and fuel in our fight against the drought. We must first insure that the limited supplies of power and fuel for fighting against the drought are given to the major production areas of commodity grain, where the situation is the worst. The province has tried its best to reduce the supply of power to some cities and industries, so as to allocate the needed fuel to these areas ahead of schedule for fighting the drought. All localities are urged to focus their efforts on solving major contradictions, appropriately conserving on the use of power in cities and industries, and using the diesel fuel saved for helping agriculture fight the drought. Agricultural banks in various localities should give priority attention to providing funds and loans needed for fighting the drought.

Third, we should do well in coordinating and providing services. Provincial departments concerned have sent work teams to areas seriously affected by the drought for coordinating on-the-spot the use of electricity, water, and fuel for fighting the drought. Departments at various levels should also promptly send staff to the forefront to solve practical problems. As for water conservancy facilities in various areas and along river basins, we should manage them in a centralized way. The electricity generation work of small hydroelectric power stations must be subordinated to the work of fighting the drought. If the local situation requires, we should temporarily close some of them. We should insure that electricity and fuel designated for fighting the drought is used properly. While fighting the drought, we should also do a good job of preventing floods and avoid slackening our vigilance.

/12766
CSO: 4007/381

HUBEI

BRIEFS

HUBEI COTTON EXPORTS REPORTED--Cotton has become the largest export commodity in Hubei Province this year, the newspaper ECONOMIC INFORMATION reports. By the end of April, the province had exported 40,000 tons of cotton, about the same volume as last year. Since January, foreign trade departments in the province have signed contracts for export of 80,000 tons of cotton, 60 percent over target. An estimated $72 million in foreign exchange has been earned from export. Hubei Province produces 500,000 tons of quality cotton a year. Cotton exports primarily go to Japan, Indonesia, Thailand, Italy, the Federal Republic of Germany, Portugal and Spain. [Text] Bejing CHINA DAILY in English 1 May 86 p 2 HK] /9274

CSO: 4020/302

ISSUES IN SECOND-STAGE RURAL REFORMS DISCUSSED

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 1, 23 Jan 86 pp 19-21

[Article by He Shuyuan [0149 3219 1254] of the Agricultural and Industrial Office of the Hunan Provincial Committee: "Some Issues in Second-Stage Rural Reforms"]

[Text] The second stage of rural reforms will be primarily in restructuring of production and development of commodity production. The picture is good, but there is quite a bit of controversy and hardly a consensus. This outlook examines the Hunan situation from a number of different conceptualizations.

I: How To Accurately Handle the Issue of Restructuring Rural Production

Restructuring production is a necessary path to revitalizing the rural economy and bringing affluence to the nation and people. Wherever the pace of restructuring is rapid, farm income rises. This has already become the rule. Right now, restructuring of Hunan's production structure is just beginning, and yet some comrades are already concerned. This became especially apparent after the drop in grain production last year. They felt that the pace of restructuring was too fast for conditions and became loathe to continue the trend. Some went so far as to suggest a retreat. We are of the opinion that this issue should be looked at from all sides dialectically, for which purpose it can be analyzed from the following perspectives:

1. Scaling down grain areas to develop cash crops and other production is sensible and necessary. Last year, Hunan scaled back its grain-growing area by 2 million mu. Of this figure, 1,387,000 went to various cash crops, 440,000 were used to dig fish ponds, 364,900 mu were reforested, and 69,600 were returned to wetlands. The total area sown in grain fell by 4 million mu or 5 percent--hardly a great extent. This reduction in grain area brought improvements in the internal makeup of agriculture, development of cash crops, fishing, and forestry, and economic returns far beyond what would have been attained if grain had been planted. A survey of eight townships in Linxiang, Huarong, and Pingjiang counties reveals that this partial reduction in grain area led to income increases of 120 yuan per mu. Taoyuan County scaled back its grain area 10.4 percent and rose 19.1 percent. In particular, since the

bulk of the area scaled back from grain was lowland and hillsides ill-suited for such purposes, the switch to cash crops brought reductions in drought losses and a surge in income. For example, Sangzhi County scaled back grain planting on hillsides this year; and although grain output fell 20 million jin, per capita income went up 60 yuan. These facts illustrate that restructuring is healthy and effective on the whole. Further reasonable adjustments should be made gradually. The guiding principle is still "absolutely no relaxation of grain production while going forward to develop diversified operations."

2. Last year's cutback in grain production has many causes, not all of which can be attributed to scaling down the area planted in grain. Gross output for the province last year was above 48 million jin--around 4 billion jin lower than 1984. There were several major factors involved. First, there were serious natural setbacks. Last year there was a cold spring, along with mountain floods, outbreaks of pestilence, and most significantly, a series of droughts. In early August, 50 percent of the total area sown was under drought conditions. Over 20 million mu of first- and second-crop rice and 15 million mu of early wheat withered. More than 20 million mu of two-season rice sprouts were never transplanted because of the drought. There were 140,000 households comprising 640,000 people whose early and second rice crops never matured. A second factor was the low price for grain and skyrocketing costs for production materials. Farmers could not make a reasonable return on their investment. This had an impact on their enthusiasm for producing commodity grain. There was a falloff in both material and labor investment from the previous year. A third factor was a lapse in ideology and leadership work within agricultural departments toward grain production. Management of water conservancy, supply of fertilizer, and technical services did not keep pace. A fourth factor was that reductions in grain area were put into planning. Last January at the meeting on provincial rural work, the Hunan committee and government ascertained that total grain output for the province should stabilize at 50 billion jin--down 2.2 billion from 1984. It should be noted, however, that the drop was brought about by a planned adjustment.

3. Our lack of experience, service work which did not keep pace, the occurrence of blindspots in some localities, and the fact that some products did not sell do not seem remarkable for the restructuring of rural production which took place last year. In the past, we worked according to command planning, and still some products did not sell. Right now, the countryside is moving from a self-sufficient and semi-self-suifficient economy to a rather large-scale commodity economy. It is difficult to grasp the rules of supply and demand to the proper degree all at once. Some products are in excess for a while and then show a shortage, which is to be expected. The kinds and amounts of products produced cannot be expected to match social and consumer demand exactly. Of course, attention should be paid to the problem. Macroeconomic guidance should be beefed up and information channels opened. Services should be improved and blindspots avoided as far as possible. This will avoid the massive fluctuations which damage farmer enthusiasm and affect the production restructuring process. At the same time, farmers should be taught to think in terms of the commodity economy and to understand that commodity production itself involves a certain modicum of risk. If one is so afraid of risk, like one who refuses to eat for fear of choking, nothing will ever get done.

4. Restructuring production does not mean losing a handle on grain production, and the two should not be held up as being in mutual opposition. Continuing to have a handle on grain production and effectuating stable increases therein requires that a certain area be maintained, which is entirely as it should be. But it is even more important to focus on improving per-unit yields. The potential here is very great. The Hunan Institute of Agronomy has already successfully created a 1-ton test plot. If the province can bring 20 million mu of paddies up to the 1-ton mark for grain yield within 10 years, that would amount to 40 billion jin. Combining this with other tilled areas, the province could produce a total yield in excess of 60 billion jin. So the discussion should not be directed entirely toward the area of grain planted. Singular attention to the amount of area planted and to planting grain whether it is appropriate or not will bring poor economic returns at the same time as grain yields will fail to go up. This is a lesson we have already learned.

II. How To Correctly Handle the Issue of Deregulation of Farm and Sideline Prices

Central Committee Document No 1 of 1985 clearly pointed out that overall price reforms should begin with farm products. This is a profound historical change for China's economy, one which will breath new vitality into both the rural economy and the national economy as a whole. Still, some comrades feel that price rises for farm and sideline products have been brought about by deregulation which has gone too far too fast. Some comrades want to return to the old standby of unified procurement and assigned sales. How is this issue to be dealt with? We feel that:

1. Our starting point for policy formulation is the development of productive force. Elimination of unified procurement and deregulation of farm product prices will fully motivate farmer enthusiasm and promote production developments. This is a policy which is on target and should not waver. For example, citrus products are among Hunan's major outputs. Prior to 1983, because operations were unorganized, the total yearly output amounted to between 2 and 3 million dan for which the purchase price was extremely low. Tens of thousands of dan were left to rot every year. In each of the 2 years since deregulation, output has gone up 1 million dan with little left to spoil. The markets still have citrus for sale after the spring season is over. Another example is fresh fish. State procurement in the past meant that a jin sold for 0.30 or 0.40 yuan, and the land of rice and fish around Dongting Lake saw not a fish to be had. After deregulation 2 years ago, fish production increased rapidly. Although the price has gone up somewhat, there is fish for sale throughout the year. Quantities and quality of charcoal and tea have also gone up since deregulation. The crunch between supply and sales has begun to ease. With deregulation of unified and assigned procurement for hogs last year and the opening up of multiple channels of business, "selling difficulties" occurred in June, July, and August. Now the problem is "buying difficulties." In the first half of last year, 5 million head of hogs were sold outside the province--a better than 100-percent increase from the year before. With the price of hogs on the rise, farmer enthusiasm has gone up and production has increased rapidly. These facts fully illustrate that once prices are deregulated, farmer enthusiasm is mobilized, productive force develops, and the material needs of the rural population are met. The policy is absolutely correct.

2. The surge in prices for a segment of farm products is subject to the control of laws of pricing. Overall, farm and sideline products are now unable to meet the ever-increasing demands of the rural population's material needs. Prices for some farm products have gone up. This is in accordance with the laws of pricing; and it would be impossible for them to hold steady at any set level. This is especially true in recent years, during which, due to the lack of control over capital investment and the swell in consumer funds, supplies of many products cannot meet demand and, consequently, prices have risen. The market price of steel is more than two-fold higher than the list price and the price of autos more than double. Selling prices for farm production materials have risen extensively. Costs for producing grain are generally up 35 percent. Outlays for production materials per mu of farmland are up approximately 15 yuan from 2 years ago. If we freeze farm product prices, farmers will not be recompensed for their investment in production. Farmer enthusiasm will suffer, along with production. As a result, market supplies will be even tighter. To focus attention entirely on price increases for farm products as opposed to those for industrial products would be unfair. Of course, consumers are concerned about price increases for farm products, which is understandable. However, those in leadership and economic research positions must be knowledgeable about and analyze the entire economic picture if they are to be able to come to correct conclusions and adopt correct methods for dealing with it.

3. The current rise in prices cannot be stabilized by controlling or lowering farm product prices. That will merely hamper development of production. In the past, we ignored laws of pricing in our affairs and proceeded by means of unified procurement and assigned sales. Producer enthusiasm was low and for a long period of time, production failed to develop. Supplies of materiel and capital were short and allotted on the basis of chits. The masses were upset about this; and our memories of those days are still fresh. Now the Politburo and the State Council are supporting reform and conduct based upon laws of economics and pricing, developing commodity production, and revitalizing the rural economy, with manifest success. The problems which have cropped up in the reforms can only be solved in the spirit of reform, as, for example, in the question of how to bring the role of state-run commerce into play as the major channel and how to make it participate actively in market intervention to bring prices down.

III. How To Correctly Assess the Issue of to What Extent the Countryside and Farmers Are To Be Enriched

Since the 3rd Plenum of the 11th CPC Central Committee, the central leadership has adopted a whole series of policies to bring wealth to the people through development of the rural economy. There have been manifest improvements in farm income and improvements in living standards. A few households have passed the 10,000-yuan mark. Some comrades feel that the whole countryside is too wealthy. Because estimates for the level of affluence among farmers have been so high, everyone has been extending a hand to the farmers for a handout. Some state administrative agency units have also been tasking farmers; making them take assignments and pay fees and fines has become a widespread practice. The provincial committee's rural department has estimated that the total burden on farmers in the province amounts to 1.1 billion yuan or 23 yuan per capita. Of this, 7 yuan is for state taxes, collective withholdings amount to

8.6 yuan, and average apportionments are 7.6 yuan per capita. In some areas the figure is between 30 and 40 yuan. This issue has become a rather considerable one in the relations between the party and the people. The people complain, saying: "It's all well and good to apportion assignments out to households, but the burdens are too heavy." As far as the Hunan countryside is concerned, although there have been significant rural developments and the living standards of farmers have improved greatly, the rural economic base is still weak. Development is highly imbalanced. The number of affluent households at per capita incomes above 500 yuan only comprises 15 percent. For 70 percent, it is just a matter of having enough clothes and enough to eat. For the other 15 percent, even these problems have not been solved; and of this figure, 5 percent are in desperate poverty. When we analyze this problem, we must start from this reality.

The issues mentioned above are issues to be understood. They are issues which must be conscientiously studied as the second stage of reform takes hold. We must come to understand thoroughly the importance and urgency of the second stage reforms and accurately comprehend that the goal of these reforms is the development of commodity production and of rural productive force so as to bring affluence to the farm. Whatever guiding principles, policies, methods, and measures meet this goal are the correct ones. Those which are not conducive to the development of productive force should be corrected. Only in this way can sustained, stable, and coordinated development of the rural economy and sustained reform proceed.

12303/9312
CSO: 4007/303

HUNAN

OVERALL SALES OF FARM MACHINERY REMAIN STABLE

Beijing ZHONGGUO NONGJIHUA BAO in Chinese 2 Feb 86 p 3

[Article condensed from the Hunan NONGJI JIANBAO: "This Year Hunan Province Farm Machinery Sales Will Be Stable or Increase Slightly"]

[Text] Net sales of farm machinery in Hunan Province are projected to reach 225 million yuan in 1986, maintaining their 1985 level. Of the seven most important kinds, farm byproduct machinery, industrial machines and replacement parts will continue to increase; mechanized farm equipment, farm traction vehicles, and irrigation machinery will decrease; semimechanized farm equipment and other farm machinery sales will be steady. The overall sales tendencies are as follows:

1. Large agricultural transport machine sales have been decreasing while small machine sales are steady.

In 1986, large agricultural gasoline vehicle sales will register a strong decrease while small farm transport vehicle sales will increase slightly. Sales of small transport vehicles are projected at 400 vehicles, 23 percent higher than in 1985. Large tractor sales may show a slight decrease. Small tractor sales will be stable. Sales of 12,500 small tractors are projected.

2. Agricultural traction machinery sales will be stable. In 1985, all of Hunan Province suffered a serious drought, and sales of traction machinery increased. Sales in 1986 may number about 42,000, the same as the 1985 level. Of these, sales of electrically-powered vehicles will continue to increase to a projected 15,000, an increase of 7 percent over the preceding year. In the absence of serious natural disasters, diesel vehicle sales may decline slightly to a projected 27,000, a decrease of 4 percent. Of these, the low-horsepower diesel vehicle supply will be slow while 495Q, 695Q, and 135Q series and 6160-class diesel vehicle sales will increase.

3. Agricultural water pump sales will decrease. Sales for 1986 are projected at 23,000, a decrease of 18 percent from 1985. However, small water pumps continue to sell well.

4. Agricultural byproduct and processing equipment sales are increasing rapidly. Projected 1986 sales of these machines should amount to 5 million yuan, an increase of 67 percent over 1985.

5. Parts sales continue to increase. Projected sales could reach 88 million yuan, an increase of 12 percent. Because of materials shortages, the supply of metal parts for tractors is still short, and projected sales of these amount to 66 million yuan, an increase of 10 percent. Demand for all kinds of tires has increased, and sales are predicted at 92,000 sets, an increase of 12 percent.

6. Tires for hand-operated carts show a slow, but steady increase. Sales of tires for hand-operated carts, inner tubes, and outer tires are projected to increase by 4, 1, and 2 percent, respectively.

9990
CSO: 4007/294

AFFORESTATION ACTIVITIES FULLY UNDERWAY

Beijing RENMIN RIBAO in Chinese 19 Feb 86 p 2

[Text] Tree planting and afforestation activities are fully underway in Hunan Province. By the end of the first third of February, soil had undergone preparation on 2.3 million mu of barren mountain land and 800,000 mu had already been planted with trees.

Below are new features regarding afforestation activities in Hunan:

--Many areas have altered their habit of both reclaiming land and planting trees during spring; instead they are doing land-reclamation work in the autumn and afforestation work in the winter. This has increased the rate of survival for newly planted trees and has accelerated the growth of young forests. After harvest last year in Taoyuan County, a labor force was organized to go up into the mountains and before this year's Spring Festival they had already afforested a section of barren mountain.

--In order to raise economic gains and the quality of trees, a plan must be developed and universally recognized before afforestation begins. The plan in Hunan is to plant 1 million mu of fast-growing, high-yield woods. But before planting begins, the forestry department must select tree varieties and methods of soil preparation suited to the particular local conditions; technical measures must also be made workable on mountain tops. At the same time, forestry units should sign contracts with household heads to carry out soil preparation and afforestation according to the requirements of the plan.

--The mix of trees planted should be adjusted in line with the demands of the commercial market and the principle of planting many varieties and those types of high yield. Commercial woods must also be actively developed. Seventeen townships in Shimei County have started up small-scale commercial tree farms of Chinese chestnut, walnut, and persimmon trees, which together occupy a total of 1,300 mu. A jujube forest is being established on the 20,000-mu purple Mt. Yeyan in Hengshan County; by spring, 3,000 mu will have been planted. This year a new 15,000-mu base for eucommia bark is being established in Zili County. In Hengdong County there are 954 small family fruit orchards.

--Afforestation should inspire a variety of management styles: households should plant on adjacent, but separate plots and tree farmers and townships should unite management to do even a better job. Xiangtan, Taoyuan, Guluo and Taojiang counties must universally implement a unified scheme and operations must be divided according to households, with afforestation carried out in successive strips so the forest will have an orderly appearance. In the center of a large section should be young growth which will facilitate cutting and transport in the future. Lingling Prefecture has 14 state-run forest areas of which 90,000 mu on a barren mountain are being afforested in a jointly managed operation with nearby peasants. The state forest administration is providing funding and seedlings and has contracted responsibility for planning and technology; the peasants will provide the labor and are responsible for the tree planting, tending, oversight, and preservation; profits will be divided up rationally. Forestry science research institutes in many counties have linked up with local peasants and are providing technical assistance in carrying out afforestation.

13030/9312
CSO: 4007/292

JIANGSU

BRIEFS

SILK OUTPUT, EXPORTS--Silkworm cocoon output in Jiangsu was 1.45 million dan in 1985, surpassing the target of the 6th 5-Year Plan one year ahead of schedule. Last year exports of silk products from Jiangsu accounted for 23 percent of the national total; 31,830,000 meters of real silk products were exported, and more than 100 million yuan in profits were turned over to the state. [Excerpts] [Shanghai WEN HUI BAO in Chinese 17 Mar 86 p 1]

CSO: 4007/383

JIANGXI

AGRICULTURAL STATISTICS RELEASED

Nanchang JIANGXI RIBAO in Chinese 8 Mar 86 p 2

[Excerpts] In 1985, the social output value in rural Jiangxi was 16.47 billion yuan, a 20.7 percent increase over 1984. Of this, the proportion of rural industry, construction, commerce, and transportation increased from 27.9 percent in 1984 to 30.5 percent.

The gross agricultural output value was 9.66 billion yuan, a 7.2 percent increase over 1984. The output value of forestry was 662 million yuan, a 12.7 percent increase; animal husbandry 1.603 billion yuan, an 18.4 percent increase; sideline industry 1.039 billion yuan, an 11.1 percent increase; fishery 211 million yuan, a 23 percent increase. The proportion of the total output value of forestry, animal husbandry sideline, fishery increased from 33.8 percent to 36.4 percent. The output value of the crop seed industry was 6.145 billion yuan, a 3.0 percent increase. The output value of cash crops was 699 million yuan, a 13.3 percent increase.

In 1985, the gross output of grain was 15,335,000 tons (30.671 billion jin), a 156,000 ton (313 million jin) reduction over 1984.

Output of major agricultural products:

	1985 (10,000 tons)	Increase in 1985 over 1984 %
Grain	1,533.5 (30.671 billion jin)	-1.0
Cotton	62,199 tons (1,244,000 dan)	-10.0
Oil-bearing Crops	12.2 (2,445,400 dan)	17.3
Jute. Ambari Hemp	59,749 tons	260
Ramie	5,106 tons	110
Sugarcane	197.1	31.4
Flue-cured Tobacco	2,914 tons	5.6
Sun-cured Tobacco	5,880 tons	45.3
Tea	14,291 tons	5.0
Citrus Fruit	68,959 tons	22.5
Output of Pork, Beef,	60.21 (10,000 tons)	
Pork Output	12,043,000 dan	17.5
Hogs Slaughtered	8,813,000 head	9.8
Pigs at Year End	12,325,100 head	8.2.
Cattle at Year End	2,474,700 head	6.4
Aquatic Products	160,200 tons 3,203,800 dan	23.1
Afforested Area	5,912,900 mu	37.7

At the end of 1985, the aggregate power capacity of the province's farm machines was 4,980,000 kwh, a 10.9 percent increase over 1984. The number of large and medium-sized tractors was 23,000, a 0.8 percent increase; the number of small capacity and walking tractors was 68,600, a 0.7 percent increase over 1984; trucks 16,500, a 32.4 percent increase. The consumption of electricity in rural areas was 875 million kwh, a 0.3 percent increase. A total of 539,000 tons of chemical fertilizer were applied, a 13.7 percent increase over 1984.

CSO: 4007/385

BRIEFS

COMMODITY BASES--With the approval of the State Economic Commission and the Ministry of Agriculture, Animal Husbandry, and Fisheries, Jiangxi will set up 8 farm commodity bases. This year the central authorities will invest 4.4 million yuan, and local authorities will invest an equal amount. Boyang, Xinjian, and Xiajiang counties will be bases for high-quality rice. After these bases are set up, 800 million jin of high-quality rice will be produced, and more than 260 million jin will be exported. Nanfeng, Nankang, and Wuning counties wil be fruit bases. Within 3 years, Nanfeng will add 30,000 mu to its orange orchards and improve 10,000 mu of low-yield fruit orchards and increase output of mandarin oranges by 5 million jin. Jiangxi hopes to develop its river and lake resources, Jiujiang and Yugan counties will be production bases for waterfowl. The central authorities have decided within 5 years to invest 3 million yuan to set up a ramie production base and increase ramie production by 100,000 mu. [Excerpts] [Nanchang JIANGXI RIBAO in Chinese 23 Mar 86 p 1]

CSO: 4007/385

INVESTMENT INCREASE IN GRAIN, CASH CROPS

Beijing RENMIN RIBAO in Chinese 14 Feb 86 p 1

[Reported by Tian Wenzhong [3944 2429 0112]: "Nei Monggol Promoting Integrated Cultivation Techniques for Grain, Cash Crops; One Yuan Investment Results in 150 Yuan Earned; Production up 1 Billion Jin in 3 Years; Profits at 120 Million Yuan"]

[Text] Nei Monggol has organized an agricultural technology development program and is extensively promoting high-production technology. In 3 years time, food output has increased by over 1 billion jin, a stunning achievement, and economic gains of over 120 million yuan have been accumulated. Under this program a 1-yuan investment into technological research brought back a 150-yuan dividend from the land.

The program to "Develop Techniques for Integrated Cultivation of Important Grain and Cash Crops" is being carried out in Chifeng and Zhelimumeng in eastern Nei Monggol. Chifeng has selected millet, sorghum, and corn as experimental crops and Zhelimumeng has chosen sorghum and corn. In these two areas the science committee (technology section), the agricultural bureau (agricultural and livestock section), and the Agricultural Science Research Institute are responsible for this program.

As the 1985 program concluded, nearly 2.94 million mu of land were being utilized for growing the three cash crops involved in this experiment. Chifeng was using 1.52 million mu of land and Zhelimumeng was utilizing 1.42 million mu. The land used for the experimental growth of these three crops occupied 70 percent of the total irrigated land used for sowing these crops in these areas. In 3 years, these two areas utilized a total of more than 5 million mu for experimentation. In the course of this project, Chifeng all told increased production of food by more than 700 million jin in the 3 years, including last year's increase of 300 million jin. Zhelimumeng increased food production 300 million jin in the same 3-year period, including a 200-million-jin increase last year. Experts in relevant fields believe this kind of widespread, striking achievement in agricultural technical development is unprecedented in the last 30 years in Nei Monggol.

The main methods employed in this technological development are: the employment of traditional, effective techniques for high production, such as carefully choosing good varieties, intensive soil preparation, application of varied fertilizers, well-timed management based on leaf maturity, application of spike fertilizer and the emasculation of every other row when planting corn.

All of this has been integrated into a complete system. Furthermore, technical standards for the cultivation of the various cash crops have been formulated and a team has been organized to institute the widespread application of these techniques. To guarantee the implementation of technical standards, all levels from the science committee of the autonomous region directly on to each township participating in technological development have signed responsibility contracts. Consequently, ordinary technology has engendered exceptional production achievements. In Chifeng, the production of millet per mu went from 343 jin per mu before instituting a complete technological system 3 years ago to 505 jin; sorghum increased from 439 jin to 684 jin per mu, and corn went from 678 jin to 926 jin per mu. In Zhelimumeng the average production per mu for sorghum went from 435 jin 3 years ago to 622 jin and corn went from 591 jin to 877 jin per mu. The three crops in both areas surpassed the targets set in the technology development plan.

In 3 years, 2,400 technical cadres and 4,300 peasant technicians participated in this technological-development task and in the course of the project 320,000 peasants received technological training.

13030/9312
CSO: 4007/292

FARM, LIVESTOCK MACHINES DEVELOPING RAPIDLY

SK271145 Hohhot Nei Monggol Regional Service in Mandarin 2300 GMT 26 Apr 86

[Text] According to the materials recently provided by the department concerned, farm and livestock machines have developed rapidly over the past few years. As of 1985, the region's total power capacity of farm and livestock machines reached 6.411 million horsepower, double that of 1978. At the same time, the numbers of tractors in the region was 117,450, a two-fold increase over 1978, and that of oil-consumed vehicles, 8,432, approximately a 150-percent increase. In addition, machines owned by peasants and herdsmen increased substantially in number and in proportion. Now the tractors owned and managed by peasants and herdsmen themselves account for 87.12 percent of the total in the region.

In consonnance with the further development of the agricultural economic structural reform, the service scale of farm and livestock machines has extended to the fields of agriculture, forestry, animal husbandry, sideline production, fisheries, industry, commerce, transportation, construction, and service trade, thus playing an increasingly important role. Some new problems, however, have also cropped up in the process of mechanization of agriculture and animal husbandry. Major indicators are: The growth rate of small tractors is much too rapid; subsidiary farm tools are in short supply; and large and medium-sized tractors throughout the region, 40 percent have been used for more than 10 years, and most of the subsidiary farm tools are at the technological level of the 1960's. Such tractors and farm tools are backward in function, and cannot meet the needs of agriculture and animal husbandry. Therefore, it is an urgent task to establish a new comprehensive service system.

**/9274
CSO: 4007/390**

PROVINCE NOW RANKS SECOND IN BEET SUGAR PRODUCTION

OW010801 Beijing XINHUA in English 1447 GMT 30 Apr 86

["Sweet Success for Inner Mongolia"--XINHUA deadline]

[Text] Hohhot, 30 Apr (XINHUA)--Inner Mongolia Autonomous Region has become the country's second-largest producer of beet sugar, next only to Heilongjiang Province, said an official in this regional capital.

It produced 250,000 tons of sugar in the 1985-1986 production period, a 55.8 percent increase over the previous period.

Sugar beet was first grown in Inner Mongolia, Northern China, in the 1950's. Last year, 2,330,000 tons of beet was grown, and output was 27 tons per hectare.

To keep up with the development of beet production, the region has built 18 sugar refineries using equipment from Japan and Denmark.

Their products are sold in 10 provinces and municipalities, and are exported to Eastern European countries and Hong Kong.

/9274
CSO: 4020/302

BRIEFS

QINGHAI FARM MACHINERY INDUSTRY--In recent years, Qinghai Province's cultivation, breeding, transportation, construction, agricultural processing, gold mining and many other activities have been expanding, and all kinds of specialists have been filling the needs of the moment. Farmers' and breeders' requirements for small tractors, small diesel engines, food processing equipment and semiautomatic agricultural equipment have been rising steadily. The province's 400,000 agricultural households have 28,000 walking tractors, which is an average of 7 walking tractors for every 100 households. Walking tractors are more common in the eastern agricultural region, close to county seats, where 20 to 25 percent of the households have walking tractors. An average of 1 in 100 households has a large or medium tractor. In recent years, an average of 1 in 4 agricultural households has a vehicle of some sort. After adding agricultural gas-powered vehicles, the transport problems of farming and animal-breeding areas have basically been resolved. All villages now have flour mills and grinding machines, especially in mountain areas where the shortage of milling machines and the difficulty in shipping grain have both been successfully resolved. [Text] [Beijing ZHONGGUO NONJIHUA BAO in Chinese 19 Jan 86 p 2] 9990/12955

CSO: 4007/287

SHANDONG ISSUES CIRCULAR ON COMBATING DROUGHT

SK010723 Jian Shandong Provincial Service in Mandarin 2300 GMT 30 Apr 86

[Text] Recently the provincial people's government issued an emergency circular, calling on all localities to further mobilize the masses to continue to combat drought in order to ensure a timely spring sowing and a bumper wheat harvest.

Our province has had very little rain since the beginning of this year. Particularly since the beginning of April when the temperature was rising rapidly and strong winds were blowing, the soil moisture content has seriously deteriorated. Thus, the drought has become more and more serious. More than 40 million mu of cultivated areas throughout the province have been damaged. The spring fields in many areas have not been sown yet due to a lack of moisture.

According to a weather forecast, the drought will continue. The next month is a crucial moment of capturing a bumper wheat harvest and timely grasping spring sowing.

The circular urged: All localities should make the most of the existing water resources, strengthen the management of water conservancy facilities, and concentrate time and energy on rapidly repairing the water conservance facilities in poor condition and the facilities that were damaged in order to put them into operation as soon as possible. The charges for agricultural water usage should be collected strictly in line with the regulations. Such practices as abritrarily raising or collecting the charges for the agricultural water usage will never be allowed. Water supply for the units and the peasant households with financial difficulties should be ensured prior to collecting their water charges.

In order to ensure success in combating the drought, the provincial government decided to increase the quotas for diesel oil and electricity supply to different localities in order to ensure the drought combat work. No units or individuals are allowed to divert these materials to other purposes. All localities should strictly control the power supply for town and township enterprises, industrial enterprises, sideline occupations, and transportation trade in order to make ways for combating the drought and ensuring a timely spring sowing and a bumper wheat harvest. Power, commercial, and communications departments should firmly grasp the management and supply of oil and electricity. Agricultural banks and credit departments should give priority to granting the funds for combating the drought.

Combating the drought to ensure a timely spring sowing and a bumper wheat harvest is the key task of the current rural work. Thus, leading cadres of all localities should personally grasp this work, while responsible leaders should engage themselves in the work. Simultaneously, all localities should organize powerful working groups and transfer forces to the forefront line to timely help the grassroots areas study and solve their practical problems.

/9274
CSO: 4007/390

SHANDONG

BRIEFS

QIANGDAO BEER PRODUCTION--Qingdao, 2 May (XINHUA)--Qingdao Brewery in Shandong Province will produce more than 100 million liters of its world-renowned beer this year, double the 1982 figure, said a brewery official. This follows completion of a 4-year expansion scheme at the 81-year-old brewery, which has included the import of bottling lines, filters, testing meters and other equipment from Federal Germany and Italy. Beer is becoming increasingly popular in China but production is still not meeting demand. The problem will be greatly eased by 1990, when national output is expected to total 5 billion liters--double the 1984 figure. [Text] [Tokyo KYODO in English 1047 GMT 2 May 86 OW] /9274

CSO: 4020/302

MEASURES PROPOSED TO IMPROVE VEGETABLE SALES, OUTPUT

Shanghai WEN HUI BAO in Chinese 28 Oct 85 p 2

[Text] The municipal government recently authorized and sent down "A Clarifying Report on Doing Well in the City's Vegetable Production and Sales," with a total of 18 policies and measures to the Municipal Agricultural Committee, the Municipal Finance and Trade Office and the Municipal Vegetable Leadership Sub-committee Office.

The main points of the policies and measures for promoting vegetable production are:

1. Conscientiously guarantee the area of vegetable fields. In ordinary years our current 180,000 mu of vegetables fields must ensure good, adequate growing. In the last two years there has been a rather big reduction of vegetable fields in the close in suburbs, and beginning this fall, we have supplementally increased vegetable fields continually in the mid- and outer suburbs by about 20,000 mu, [after] first increasing them about 10,000 this winter, and the city is still striving to build a vegetable field base of 200,000 mu annually.

2. Stabilize and replenish the vegetable growing labor force. In close in vegetable areas, we must not develop further densely crowded village enterprises and should strictly limit the shift of labor. Production brigades with too heavy a vegetable growing burden should be adjusted appropriately, and we should replenish the vegetable farming labor force and ensure the good, adequate cultivation of vegetable fields.

3. Stabilize and perfect the production responsibility system in vegetable growing districts. Based on the current situation in the city's vegetable growing areas, vegetable production is not suited to contacting it down to the household. The currently implemented multi-form production responsibility system, using mainly the "unified management, and production (value) tied to the laborer" should be made more stable and further improved, and should gradually develop toward "unified management, with production, value and capital tied to the laborer," in order to better realize more gains for more labor, and to effectively mobilize the production enthusiasm of vegetable growing farmers.

4. Appropriately adjust the method of evaluating the ration grain and ration oil for vegetable growing farmers.

5. Continue to carry out profit sharing for village enterprises, industries and sideline occupations in vegetable growing districts, and support vegetable production.

6. Connect taxes for village enterprises with the vegetable growing situation.

7. Speed up the pace of mechanization in vegetable growing districts. Presently, we must create breakthroughs in mechanization for ditch digging, fertilizer application, chemical spraying and insect control in order to reduce labor density, and must also conscientiously supply of agricultural machines and their spare parts.

8. Guarantee material supplies for vegetable district production.

9. Strengthen public opinion and propaganda in praise of agriculture.

The main policies and measures for improving vegetable circulation were:

1. Purchasing and sales policies. Next year, we will continue to carry out the "manage eight, release two" policy in the purchase and sale of vegetables in suburban counties. That is, we will still carry out the planned cultivation, planned set purchase and planned pricing for 22 main vegetables that make up 80 of total market volume; people can conclude and sign set purchase agreements for the 20 percent of varied vegetables and premature primary vegetables and implement guided prices, according to the principle of voluntarism.

2. Rationally set purchase and sales prices for vegetables.

3. Guarantee the performance of purchase contracts. If the producing party, without reason, does not implement the contract, he will not be given subsidies. If the purchasing party, without reason, does not implement the contract, additional subsidies will be given to the producing party.

4. Forms of purchase and sales. Vegetables purchase and sales stations should purchase from vegetable growing farmers by contract, and the vegetables included in the contract shall not be subject to service charges. There may also be freely selected between producer and buyer based on voluntarism.

5. Good management must be maintained in vegetable fields. They must provide goods based on the population and daily supply index and do monthly accounts.

6. Continue to subsidize losses in vegetable management.

7. Improve vegetable market management. Individual retailers must enter the market to trade, show their identification to engage in business, and pay taxes and fees in accordance with regulations. Buying goods illegally and reselling for profit or driving up prices are strictly forbidden. When

necessary, commodity price departments and industry and commerce administrative management departments may stipulated the highest possible price for certain important vegetables. Vegetable purchase and sales stations, wholesale sales markets and vegetable markets should improve their ideological and political work and their internal management, and strictly forbid collusion between those inside and those outside and illegal purchase in order to seek a profit, and they should resolutely prevent improper behavior such as "large sellers" and opening up back doors.

8. Construct large-scale vegetable wholesale sales markets.

9. Pursue the use of plastic packaging and improve storage and shipping methods. During the seventh five-year period, the municipal vegetable company should construct a series of refrigerated warehouses and improve its capacity for regulating between slack and heavy seasons.

12452
CSO: 4007/200

WINTER WATER CONSERVANCY PROJECTS YIELD BENEFITS

Chengdu SICHUAN RIBAO in Chinese 22 Jan 86 p 1

[Article by Liu Suiming [0491 3606 2494]: "Every Area of Sichuan Is Actively Developing Agricultural Water Conservation Projects; 800,000 Farmers Are Deployed at the Water Conservancy Worksites"]

[Text] Since the beginning of winter, our province has had 800,000 farmers working on water conservation projects. According to statistics, up to now, various kinds of water conservation projects have been started on 36,600 sites, of which 24,300 have been completed; 8.4 million cubic meters of rock and earth were used. Newly created storage, drainage and flood resistance capability amounts to 5.65 million cubic meters. Newly added or improved irrigated surface amounts to 150,000 mu. Drinking water has been provided for over 480,000 people and 360,000 head of cattle.

While working on winter and spring agricultural water conservancy projects, leadership cadres at all levels and the masses recognized the importance of these conservation projects because the earlier situation was unsatisfactory and last year they learned from a particularly hard lesson in which insufficient water conservation seriously affected crop yields. Many leading comrades have changed their attitudes, paid attention to basic details, and inspected and supervised projects in order to resolve the problems that still exist. While closely examining the actual situation, leaders from Suining City have discovered that quite a few places are having trouble completing projects because of the heavy expense involved, so both cadres and the masses have searched for ways to relieve those having problems, depending on the total surface affected, with financial assistance and cooperative labor. In order to arrange for money and materials to cover water conservancy expenses and the costs of running the projects, municipalities and counties have established special financial accounts to ensure the successful developed of water conservancy projects. Fengdu County has assigned over 100 cadres from county and district organizations to the worksites in order to promote the development of these conservancy projects.

9990/12955
CSO: 4007/287

STATE GRAIN PURCHASE CONTRACTS PLACED

HK280357 Chengdu Sichuan Provincial Service in Mandarin 0030 GMT 28 Apr 86

[Text] Sichuan has now firmed up grain purchase contracts for all the households involved. According to statistics from the departments concerned, by now 17.86 million peasant households have signed grain purchase contracts with the grain departments. The amount of grain contracted for is 4.25 billion kilograms. The task of placing state grain contracts has thus been fulfilled.

The government at all levels in the province has seriously implemented the spirit of Central Document No 1, summed up last year's experiences, and perfected the contract purchase method. This has stimulated the enthusiasm of the rural cadres and masses. For example, with the approval of the State Council, the provincial authorities have readjusted and reduced some grain purchase quotas. The contracts are worked out for each household according to the area of land it farms and its grain output and surplus, after calculation at each level and consultation in the township and village. A certain grain purchase contract figure is also assigned after consultation to high-income peasant households that engage in diversification and grow no or little grain. The peasant households fulfill the state task by means of regulation by market mechanism, with the result that grain-growing households can increase their income.

In order to express the mutually beneficial nature of the economic contracts, the provincial government has decided that the supply and marketing cooperatives should afford priority in supplying some urea fertilizer to households that sign grain purchase contracts.

/9274
CSO: 4007/390

MEAT PRODUCTION TO INCREASE BY SIX PERCENT

OW031250 Beijing XINHUA in English 1243 GMT 3 May 86

[Text] Beijing, May (XINHUA)--Sichuan, China's biggest meat producer, will increase production by about six percent a year over the next five years, said today's ECONOMIC INFORMATION newspaper.

The growth rate is moderate compared with the 9.5 percent average over the past five years, Zhang Yinqin, deputy director of the provincial animal husbandry bureau, was quoted as saying.

But it will be sufficient to double 1980's production to 3,500,000 tons by 1990.

The province produces pork, beef and mutton. Its total meat output reached 2,800,000 tons worth 6.75 billion yuan last year, when it became the country's number one producer.

Rural income from animal husbandry has grown from an average of 37.6 yuan per person in 1978 to 114.5 yuan.

Zhang said the province would concentrate on pork production, especially lean pork, and increase the number of pigs in stock to 60 million.

During the next five years, Sichuan would build 42 more lean pig farms to bring the total number of lean pork production centers to 53.

These would raise 15 million pigs a year. By then, the province would be able to maintain a steady supply of lean pork to the major cities of Beijing, Shanghai and Tianjin.

/9274
CSO: 4020/302

JIANG MINKUAN, YANG RUDAI HELP POOR FARMERS

OW221032 Beijing XINHUA in English 0705 GMT 22 Apr 86

[Text] Chengdu, April 22 (XINHUA)--Sichuan Province, China's leading grain producer, has launched a drive among cadres to help peasant households prosper through boosting production.

A local official said today that 400,000 rural cadres and Communist party members have assumed the responsibility of helping 1.5 million households this year.

Now more than 100,000 cadres, including Governor Jiang Minkuan and provincial Party Secretary Yang Rudai, have gone to the countryside.

In addition, the Southwest China province organized 100,000 agrotechnicians to offer consultancy and other technical services to farmers. They have run training courses for 2 million people, 50 percent more than in the same 1985 period.

Ten provincial offices sent 16 teams to the grassroots to help farmers get fine seeds and fertilizer.

In the countryside, Jiang and Yang found Weiyuan and Miyi counties have ideal conditions for developing rural industry and animal husbandry. They helped the authorities work out plans village by village and household by household.

Information centers throughout the province have offered advice to 10 million households; and 8,000 township technical and financial stations assist more than 10 million farming households.

The province allocated an additional 30 million yuan for farmland water conservancy construction, technical training and plant pest and disease prevention, and the banks issued loans worth 300 million yuan this year.

/12766
CSO: 4020/295

SICHUAN

BRIEFS

RAPESEED PURCHASES--This year the area sown to rape has increased about one percent over last year, reaching more than 13 million mu, new production areas in the southeast have increased, and old production areas in the west have decreased; it is estimated that gross output will increase about 10 percent over last year. According to a recent provincial government circular, this year the procurement plan for rapeseeds is less than last year. Purchasing will continue to implement the policy of "inverted proportion of 4 to 6", with no maximum limit. [Excerpts] [Chengdu SICHUAN RIBAO in Chinese 21 Mar 86 p 2]

CSO: 4007/383

TRENDS IN FARM MACHINERY SALES

Beijing ZHONGGUO NONGJIHUA BAO in Chinese 2 Feb 86 p 3

[Article by Miao Shenming [5379 5168 2494]: "Principal Agricultural Machinery Sales Tendencies in Xinjiang"]

[Text] Here are some of the principal sales projections for the Xinjiang sales machinery market:

1. Large and medium tractor sales will continue to decline. Total sales predicted for the whole year will hardly exceed 1,000, a sales level close to the 1980 level.

2. Since May of last year, small four-wheel tractor sales have been decreasing; recently, name-brand machines have had trouble maintaining their market, and they may decrease by 50 percent from last year's level.

3. Various kinds of machines used with large or medium-sized tractors will follow the decreasing tendency of tractor sales and tend to stagnate and become overstocked.

4. Last year, sales of agricultural byproducts and processing machinery registered a slight increase, but this trend is not stable. Even if supplies are provided on time this year, we will just be able to maintain last year's level.

5. Since 1984, semimechanized farm equipment sales have continually decreased; this year's rate of decline will be even greater. Rubberwheeled handcart sales are tending to increase, but the rate of increase will not be very great.

6. Starting in 1980, tractor sales increased considerably and requirements for metallic parts also increased correspondingly. If the resources can be managed well enough to produce quality, standard goods, sales this year may increase quite a bit and several key mechanical replacement parts may get to be in short supply.

Tractors use tires of many different kinds. The tire market last year was not very good and has even begun to stagnate, so stocks of certain sizes of tires are beginning to pile up.

However, transport tractor sales have recently been increasing quickly. Still, the amount of goods transported has not increased much, so sometimes there are vehicles without goods to carry. Thus, quite a few transport workers have sold their tractors and changed from transport work to commercial service work.

Currently, stocks at farm machinery supply bureaus are high and through the end of November 1985, stocks in the system have been high. There are 682 medium tractors, 44.5 percent more than in 1984; there are 2,088 small four-wheel tractors in stock, 7 times as many as at the same time in 1984.

Therefore, 1986 sales will mainly be of vehicles which are already in stock. But, as a result of many kinds of management problems in the farm machinery market, inferior-quality goods have often entered the market. Through the present time, there are still several units that are overstocked with various off-brands of small four-wheel tractors and are in a hurry to get them off their hands. This, naturally, is harmful to sales of standard goods. During the second half of last year, 7,211 tractors were illegally imported into the nation's agricultural market. These tractors are all superior in quality, equipment, and price to the Tieniu-55 and Shanghai-50 tractors. This will seriously affect sales of these two makes of tractors.

Moreover, prices of farm machinery products have increased much more quickly than the incomes of farmers. Even though there is a great need for these products, there is not good financial support for their purchase, so farmers are unable to buy them.

Farm machinery products have changed dramatically in recent years and farmers do not know much about the newer models. As a result, many are taking a wait-and-see attitude. This has affected the development of the market for new products.

9990
CSO: 4007/294

XIZANG

BRIEFS

AGRICULTURAL OUTPUT VALUE--In 1985, the total output value of agriculture and animal husbandry in the Xizang Autonomous Region was 709 million yuan, an increase of 11 percent over 1984; meat output increased 10 percent over 1984; per capita net income was 340 yuan, a 7.3 percent increase over 1984. [Excerpts] [Beijing NONGMIN RIBAO in Chinese 3 Apr 86 p 1]

CSO: 4007/382

YUNNAN

BRIEFS

TEA EXPORTS--Because the Provincial Tea Import and Export Corporation has organized supplies and concentrated on fulfilling agreements with foreigners, in the first quarter of the year, the export volume of tea increased 87 percent over the same period last year, and the foreign exchange earned from exports increased 208 percent, accounting for 24 percent and 45.4 percent respectively of the annual plan. [Text] [Kunming YUNNAN RIBAO in Chinese 15 Apr 86 p 1] /9604

SUGAR OUTPUT--As of the end of March, Yunnan had pressed 3,2380,000 tons of sugarcane, and produced 353,900 tons of sugar, an increase of 28.63 and 26.8 percent respectively over the pressing season last year, the amount of sugar produced has surpassed last year's figure of 27,200 tons. Although some sugarcane producing areas have suffered frost and losses, the sugarcane harvest for the year is expected to be good, it is estimated that sugarcane production will surpass the annual plan of 400,000 tons. [Text] [Kunming YUNNAN RIBAO in Chinese 15 Apr 86 p 1] /9604

FERTILIZER OUTPUT, EXPORTS--In the first quarter of the year, the Yunnan Phosphate Fertilizer Plant produced more than 20,000 tons of double superphospate, an increase of 74.2 percent compared to the same period last year. Most of these products are supplied to the northwest areas of China, and some are exported to Sri Lanka and the Soviet Union. The first batch of exports met the delivery date on time, and earned $2 million U.S. in foreign exchange. [Excerpts] [Kunming YUNNAN RIBAO in Chinese 9 Apr 86 p 1]

BREEDING FARMS--To raise the quality of pork, and solve Kunming's meat supply, this year Yunnan plans to construct lean pork breeding farms in Chongming, Yiliang, Qujing, Xuanwei, and Lufeng counties, to provide pigs to specialized households and pork-breeding households. This is the first time Yunnan has set up lean pork fine variety breeding farms. Funds for these farms will be provided by investments from the province, prefecture, and county. Within the state budget, the provincial funds are 1.5 million yuan, each farm will receive 300,000 yuan. The province expects to complete construction of the farms this year, and to provide more than 5,000 pigs a year beginning next year. [Text] [Kunming YUNNAN RIBAO in Chinese 12 Apr 86 p 2]

CSO: 4007/392

FARM MACHINE SYSTEM HELPS SUPPORT COMMODITY PRODUCTION

Beijing ZHONGGUO NONGJIHUA BAO in Chinese 2 Feb 86 p 1

[Article by Chen Huaxin [7115 0553 5647]: "Whatever the Agricultural Commodity Production Requires, They Can Supply; Zhejiang Province Farm Machine System Actively Supports Agricultural Commodity Production Development"]

[Text] The Zhejiang Province farm machinery company system is organizing machinery supply and service work in accordance with demands for agricultural commodity production. In 1985, sales in Zhejiang of farm machinery and mechanical and electrical goods for farm use amounted to 324 million yuan, 50 percent higher than in 1984. Of this, at least 70 percent was supplied to common farms, which strongly encouraged development of agricultural commodity production.

In dealing with the dramatic recent increases in Zhejiang agricultural commodity production, the Zhejiang Province farm machinery company system has placed its solid advantages at the service of the rural commodity economy and will make the principal object of its services the over 400,000 specialized farms and financially related entities. Based on differing needs in various areas, it is supporting the improvement of agricultural production conditions, expanding various kinds of management, and developing production of many commodities. According to requirements for grain and for cash-crop production, Jiaxing City Farm Machinery Co. sold, outside the plan, 1,794 diesel vehicles, 1,600 boat cranes, and 9,045 electrical and other farm machines, worth 7.9 million yuan, over twice the value of plan sales. This assured sufficient supply for spring cultivation and for both summer seasons in the whole district. Near the ocean, the Rui'an County Agricultural Machinery Co. met requirements for development of shrimp breeding at local seafood-breeding areas. It especially stressed water pumps and other materials needed to develop 1,100 mu of shrimp-breeding areas by the sea this year. Farm machine companies located in mountain and foothill districts have concentrated on agricultural byproduct industries, transportation, construction, and other services.

The farm machine system in the whole province has also concentrated on supporting the development of production by rural enterprises. Several companies have dealt with shortages of materials and spare parts at rural enterprises, have expanded their handling of these goods, and have started to give advice on the supply of these items.

The Jinhua City Farm Machine Co. sent a representative to light industries, water-pumping districts, and other rural enterprises in five provinces and municipalities, this representative made 100,000 yuan in sales of shaft bearings, which relieved parts shortages in these areas.

In accordance with agricultural commodity production requirements, we are organizing farm equipment supplies, expanding the scope of farm machinery company activities, and opening up new patterns like "one principal activity, many additional activities." Currently, Zhejiang Province's farm machinery system's expanded operations include food machinery, small hydroelectric equipment, water conservancy machinery, forestry machinery, fishery machinery, transport machinery, construction equipment, electrical generators, agricultural vehicle parts, and other mechanical products necessary for agricultural production, construction, and improving living conditions. Last year's sales from expanded operations amounted to 6 million yuan, 200 percent higher than the preceding year's sales.

9990
CSO: 4007/294

RURAL REFORM CHANGES ZHEJIANG PEASANTS' WORK

OW261910 Beijing XINHUA in English 1843 GMT 26 Apr 86

[Text] Hangzhou, 26 Apr (XINHUA)--Only half of Zhejiang Province's peasants now till the land, compared with 90 percent before China launched its rural reforms in 1979, an official here said today.

Rural factories now employ 4,650,000 peasants, or a quarter of the rural workforce, said Wang Dinghua, director of the East China province's Rural Industry Bureau.

And another four million peasants are engaged in other non-agricultural sectors, with as service trades, forestry, livestock breeding, sideline production and fisheries.

Wang said: "This change is due largely to the government policy of encouraging a commodity economy to replace the traditional self-sufficiency farming."

The output value of Zhejiang's rural industry has risen at an annual average rate of 35 percent over the past five years. It was worth 25.6 billion yuan last year--5.8 times as much as the 1980 figure.

As a result, rural industries now provide a third of the province's combined value of industrial and agricultural output.

Wang said: "Zhejiang now has 100,000 factories run by rural townships and another 300,000 by individual peasants."

He said rural factories sold their 20,000 products all over China and in 100 countries.

There were now more than 1,000 rural plants geared to making exports. They made 360 million yuan worth of goods last year--up 38 percent from the year before.

They launched 34 Sino-foreign joint ventures and co-operative businesses last year, double the 1984 figure.

Wang said: "Rural industries are using part of their profits to aid agriculture."

Last year, they provided 150 million yuan to subsidize households growing grain crops and breeding livestock.

/9274
CSO: 4020/302

TI PLASMID AND ITS APPLICATION IN THE GENETIC MANIPULATION OF PLANT MATERIAL

Beijing YICHUAN [HEREDITAS] in Chinese No 6, Nov 85 pp 41-45

[Article by Jia Jingfen [6328 2417 5358], Department of Biology, Lanhou University]

[Abstract] When injured tissues of Dicotyledoneae plants are infected with Agrobacterium tumefaciens, crown gall, a kind of cancer, will be induced. However, Monocotyleae and Gymnospermae plants are not likely to have crown gall, with only a few cases being reported; this is due to genetic differences. The reason lies in that the Agrobacterium tumefaciens contains a kind of tumor-inducing plasmid (Ti plasmid). Ti plasmid carries tumorigenic genes. In the tumor-induction period, a segment of DNA in Ti plasmid can recombine into the plant's cell nucleus, mutating the plant cells into tumor cells. Using genetic engineering techniques, researchers intend to reconstruct the Ti plasmids by removing the harmful tumorigenic genes, but still retaining mutagenicity. So that the plasmids can become carriers in genetic engineering to introduce genes from external sources into the plant cells in order to create a new plant. Significant progress was reported in recent years. The paper describes the induction and characteristics of crown gall, structure and functions of Ti plasmid, and transferred DNA (T-DNA), and reconstruction of Ti plasmid and its application in genetic manipulation. Three figures show ring-shaped large molecule DNA (10) of Ti plasmid, genes of Ti plasmid coding, as well as positions in TL-DNA of tms, tmr and tml.ocs genes of pTiA6 and the re-recording products and translation direction of TL-DNA.

10424/13068
CSO: 4011/29

COMPARATIVE TESTS OF FOUR SEROLOGICAL EXAMINATIONS FOR SHEEP, GOATS INFECTED WITH B. MELEITENSIS

Lanzhou ZHONGGUO SHOUYI KEJI [CHINESE JOURNAL OF VETERINARY SCIENCE AND TECHNOLOGY] in Chinese No 10, 22 October 85 pp 14-16

[Article by Qiao Tingshan [0829 1694 1472], Lanzhou Animal Quarantine Station, Ministry of Agriculture, Animal Husbandry and Fishery]

[Abstract] To explore the variability and diagnostic significance of several serological examinations for B. Meleitensis, the author and his colleagues conducted 4 examinations (SAT, CY, CF and HIT) on sheep and goats and contracting B. Meleitensis that can also infect human beings. As a preliminary finding, higher detectability can be gained with HIT for diseased sheep and goats; the rate remains high in agreement with CF and CY. The paper reports the above-mentioned 4 serological examinations of 14 diseased sheep and goats with artificail infection; altogether 6 to 9 repetitions of these examinations were conducted. Four tables list data on the detectability, significant difference values, and agreement rates of the 4 serological examinations. Since the highest detectability values range from 69.2 to 92.9 percent for HIT examination, it is proposed that at least two different examinations should be made. Data in the author's tests are still insufficient, so further proof is required.

10424/13068
CSO: 4011/28

OBSERVATIONS ON PREVENTION, CONTROL EFFECT BY ORAL ADMINISTRATION OF B. MELEITENSIS HOG VACCINE

Lanzhou ZHONGGUO SHOUYI KEJI [CHINESE JOURNAL OF VETERINARY SCIENCE AND TECHNOLOGY] in Chinese No 12, 22 Dec 85 pp 11-13

[Article by Guo Lichuan [6753 0448 1557]]

[Abstract] Inspired by immunization acquired by sheep and goats in Nei Monggol from drinking water in the early 1970s, immunization with the oral administration of B. meleitensis hog vaccine No 2 was carried out in the B. meleitensis epidemic areas and threatened areas in Gansu Province. Significant results in disease prevention and control were gained. From 1974 to 1979, about 9 million oral doses were supplies by the Lanzhou Veterinary Pharmaceutical Plant, imparting immunity to the sheep and goats. Since the epidemic was basically controlled and no new cases of human B. meleitensis were reported, vaccine dispensing was suspended after 1980. For more than a decade up to the present, no new epidemics among the sheep and goats were reported. Following vaccine dispensing to the sheep and goats, four types of serological examinations were conducted: SAT, CYT, CFT and IHAT. Three tables in the text show the examination results: for sheep and goats in 7 districts after 5 years of vaccine dispensing, 4 cases of diseased livestock, and 8 cases of residual immune reaction. Bacteriological examinations in 1975-1976 and 1978-1979 were found to be negative. In conclusion, the vaccine will have a significant effect in prevention and control following 2 to 3 administrations. Basic control can be generally achieved following continuous vaccine administrations of 4 to 5 years. Wang Zhongxun [3769 1813 8113], Wu Guangfan [2976 1684 5400], and Wang Xiquan [3769 1585 0356] took part in the field work of the study.

10424/13068
CSO: 4011/27

END

JPRS-CAG-86-021

28 MAY 1986

China Report

AGRICULTURE

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-021

28 MAY 1986

CHINA REPORT

AGRICULTURE

CONTENTS

PEOPLE'S REPUBLIC OF CHINA

NATIONAL

Tian Jiyun Urges Strengthened Vegetable Supplies
(Qiu Yuan, Jiang Xia; RENMIN RIBAO, 24 Feb 86) 1

Committee To Sign Contracts for Export Crop Bases
(Guo Zhongshi; CHINA DAILY, 3 May 86) 3

Continued Reform of Agricultural Economy Cited
(Min Yaoliang; NONGMIN RIBAO, 9 Dec 85) 5

Agricultural Achievements of Past 5, Next 5 Years Reviewed
(Wei Nong; CHING-CHI TAO-PAO, 1 Jan 86) 9

RENMIN RIBAO Reviews Rural Economic Development
(Chen Jian, et al.; RENMIN RIBAO, 24 Apr 86) 18

National Rural Cooperative Deposits Reported
(NONGCUN JINRONG, No 5, 1 Mar 86) 23

National Agricultural Bank Deposits Reported
(NONGCUN JINRONG, No 6, 16 Mar 86) 24

JINGJI GUANLI on Need To Reform Agricultural Tax
(Chai Nong; JINGJI GUANLI, No 3, 5 Mar 86) 25

Benefits of Water Conservancy During Sixth 5-Year Plan Given
(ZHONGGUO SHUILI, 15 Feb 86) 32

Commerce Official Views Grain Development Strategy
(Ding Shengjun; LILUN YUEKAN, No 3, 25 Mar 86) 33

LIAOWANG Analyzes Grain Production Situation
(Liu Yunqian; LIAOWANG, No 15, 14 Apr 86) 44

Agriculture Minister Urges 'Practical Ways' To Kill Rats
(Nie Lisheng; CHINA DAILY, 6 May 86) 49

Methods Explored To Mechanize Animal Husbandry
(Wang Yinpo; NONGYE GONGCHENG, No 2, 5 Apr 86) 51

Technology Imports Result in Farm Machinery Improvements
(CHINA DAILY, 30 Apr 86) 55

Briefs

Veterinary Medicine Develops 56
Crop Fertilization With Peat 56
New Techniques Invented 56

ANHUI

Governor Promises To Raise Peasants' Income
(XINHUA, 28 Apr 86) 57

FUJIAN

Briefs

Aquatic Exports 58

GANSU

Scientist Recommends, Urges Use of Methods To Fight Erosion
(XINHUA, 2 May 86) 59

GUANGDONG

Meeting Focuses on Rural Cooperative Economy
(Guangdong Provincial Service, 26 Apr 86) 60

GUANGXI

Briefs

Hemp, Tea Output 61

GUIZHOU

Briefs

Arable Land Decreases 62

HEBEI

Agriculture as Foundation Stressed at Rural Work Conference
(Various sources, various dates) 63

Paper Assesses Issues, Decisions 63
Xie Feng Comments Noted 65
Vice Governor on Commodity Circulation 66

Peasant Income Quadruples With Scientists' Help
(XINHUA, 29 Apr 86) 67

Briefs

Grain Sales, Profits 68

HUBEI

Emergency Meeting Held on Fighting Drought
(Hubei Provincial Service, 24, 25 Apr 86) 69

Special Work Teams Established 69
Urgent Circular Issued 70

JIANGSU

Briefs

Egg Supply 71

JIANGXI

Briefs

Water Conservancy Projects Improved 72

JILIN

Briefs

Grain Area, Inputs Increase 73

LIAONING

Pork Sales Reported Developing Steadily
(Liu Hongbo; NONGMIN RIBAO, 4 Dec 85) 74

NINGXIA

Food Industry Developments Reported, Awards Given
(Fan Ying; NINGXIA RIBAO, 11 Dec 85) 75

Crop Increase Reported in Sixth 5-Year Plan
(Zhao Guang; NINGXIA RIBAO, 4 Dec 85) 77

Drinking Water Problems in South Resolved
(Ma Heliang; NINGXIA RIBAO, 24 Nov 85) 79

QINGHAI

Governor Stresses Agriculture, Elimination of Poverty
(Qinghai Provincial Service, 25 Apr 86) 81

SHAANXI

Briefs

Shaanxi Rural Service 82

SHANXI

Ten Changes in Peasant Expenditure Habits Identified
(SHANXI NONGMIN, 1 Mar 86) 83

XINJIANG

Spring Farming Problems Discussed at Meeting
(Xinjiang Regional Service, 25 Apr 86) 86

XIZANG

Economic Information Helps Peasants, Herdsmen
(XINHUA, 1 May 86) 87

Briefs

Lhasa Tree Planting 88
Milk Processing Factory 88
Diversified Rural Economy Growth 88

YUNNAN

Cooperation With Japan on Rice Breeding Reported
(Han Ying; YUNNAN RIBAO, 24 Jan 86) 89

/7310

TIAN JIYUN URGES STRENGTHENED VEGETABLE SUPPLIES

Beijing RENMIN RIBAO (OVERSEAS EDITION) in Chinese 24 Feb 86 p 3

[Article by Xinhua News Agency reporter Qiu Yuan [6726 0626] and RENMIN RIBAO reporter Jiang Xia [3068 1115]: "Tian Jiyun Urges Us To Strengthen Vegetable Supplies, Affirms that Approaches to System and Price Reforms Are Correct and That the Growth Trend Is Good"]

[Text] Report: On 19 February, State Council Vice Premier Tian Jiyun told the mayors participating in the 15th Urban Vegetable Business Conference that we must intensify practical, serious research into new situations and new problems arising from reforms in the vegetable trading system and in vegetable pricing. He also said we should analyze new experiences, quickly resolve any problems that appear, improve and gradually perfect reform measures, and consolidate and expand upon the fruits of reform.

In his discussion of the state of 1985 reforms in the vegetable trading system, Tian Jiyun said experience in various places shows that our approaches to reform are correct and that the growth trend is good. Certain problems still exist in some cities, and this is a problem for efforts and for progress. We must believe firmly in this reform effort and remain steadfast. We must resolutely believe that our approach to reform is correct and that persisting problems can be resolved. Municipal leaders must conscientiously conduct investigative research and solve any problems they discover as quickly as possible. Step by step they must accrue a complete set of reform measures and gradually perfect reform in practice.

Based on 1985 experiences, Tian Jiyun set forth specific requirements to further strengthen reforms in the vegetable trading system and to improve the production and supply of vegetables. First, there must be a reasonable distribution of vegetable production. Based on its own situation, each city must effect a policy to "rely primarily on city outskirts, depend on outer suburbs for supplementary supplies, and look to outside areas for necessary adjustments." Under the present circumstances, city outskirts must guarantee to have a certain number of vegetable plots, and we must adopt contract methods to regularize our vegetable trade relationships with outer suburbs and outside areas. If we can achieve an essential year-round coordination in vegetable supply and marketing, a slight excess of supply over demand would be acceptable. In this way producers' and consumers' interests alike are protected.

Second, in the vegetable business we must uphold the principle of simultaneous efforts by the state, the collectives, and individuals. It is unacceptable for the state to manage everything, just as it is unacceptable for the state to withdraw completely and ignore matters. In medium and large cities the state-run commercial sector should oversee a certain assortment and quantity of vegetables, regulate handling, and hold down vegetable prices. At the same time, it should organize and aid collective and individual businesses to engage in vegetable trade. State-run commerce must make the best use of its advantages in personnel, funding, and facilities to strengthen all kinds of services. It must provide systematic services in everything from supplying information, science, technology, and production materials on down to product processing, buying, and selling. We must strengthen management services for vegetables and nonstaple foods. We cannot turn vegetable shops into general stores or household appliance stores, but, given this precondition, we can open up new service fields and improve economic benefits. The commercial sector should review their experiences in this area.

Third, we must actively develop lateral associations and establish all sorts of allied enterprises to deal in vegetables and nonstaple foods. We can be more ideologically receptive in this area: so long as there is equality, mutual benefits, and common development, this kind of association will have vitality. All municipal governments should lend their support and help to create the necessary conditions.

Fourth, we must learn to be adept at wielding economic and administrative measures to guide vegetable production and management. Supplies of grain, oil, and production materials, as well as favorable policies on vegetable price subsidies, labor assistance, credit, and taxation for vegetable farmers must all be linked to the quantity of vegetables produced and sold to the state. We must have the most stringent stipulations on requisitioning vegetable fields. On a policy level we must support scientific vegetable cultivation, improve vegetable yield and quality, and develop nonpolluting vegetable production.

Fifth, we must integrate openness with management. To have open policies does not mean to withdraw completely and ignore matters; neither does management refer to the management methods of the past. We must study how to manage matters under new circumstances. China is so large that circumstances differ in thousands of ways. The proportion of openness and the form of production responsibility system to be instituted should be suited to local conditions.

Tian Jiyun is hopeful that each city will enhance leadership in the vegetable business. He said that vegetable problems are not minor problems: The masses are very seriously concerned about their "vegetable baskets." We must give this matter top priority: Party and government leaders should take personal responsibility, have specialists take charge, institute goal-oriented responsibility systems, and really produce results.

12510
CSO: 4007/322

COMMITTEE TO SIGN CONTRACTS FOR EXPORT CROP BASES

HK030920 Beijing CHINA DAILY in English 3 May 86 p 1

[By staff reporter Guo Zhongshi]

[Text] The first contracts are about to be signed in the programme to build a series of bases for growing crops for export.

Following several years of bumper harvests, China has become more than self-sufficient in such major cash crops as cotton, soybean and corn and has already established steady export markets for them, Huang Yueheng, a member of the special committee in charge of establishing the export bases, pointed out.

"The new programme is intended to help solve many problems in agriculture without affecting the domestic market," he said. "This is of paramount importance to the ongoing rural economic reforms."

Huang told CHINA DAILY that the committee will soon sign contracts with local authorities to develop soybean production in Heilongjiang Province, corn in Jilin Province, tropical crops in Hainan Island and high-quality cotton in Shandong, Hebei, Anhui, Jiangsu and Hubei Provinces and the Xinjiang Uygur Autonomous Region.

In 5 years, Huang said, Heilongjiang is expected to contribute at least 80 percent of the nation's soybeans for export and Jilin 50 percent of export corn.

Each of the export bases will concentrate on two major products in which they have some competitive edge. These should be products with huge potentials, steady markets and traditional association with their localities.

He said the bases will be located in places with superior natural conditions, convenient transportation, advanced processing technology and available sources of high-quality seeds or breeding stock.

Heilongjiang already possesses many of the qualifications for being an export base, he said. It has more than 2 million hectares of reclaimable land; it produces 30 percent of the country's soybeans, and its farmers have the necessary expertise for raising soybeans and corn.

Most of the bases to be built in Heilongjiang and Jilin Provinces are situated along trunk rail lines linking them with ports and harbours.

However, Huang said, "translating the blueprint to reality will not be easy" in the face of such problems as backward technology, scattered management, low quality and unstable output.

Left unsolved, such problems would affect export plans of the country, China's purchasing power of foreign advanced technology and eventually the realization of the four modernizations, he added.

But major tasks of the scheme, he said, are to boost production, link production with sales, and keep producers abreast of developments on international markets, he said.

A development fund will be set up to help with construction, technological transformation, seed import and scientific research, he said.

"Our comparative advantage lies in rich resources, large variety of crops, cheaper labour and low cost of production. We now have set out to raise the quality of our products so that they become really competitive on the world market and make big money," he said.

/12232
CSO: 4020/306

CONTINUED REFORM OF AGRICULTURAL ECONOMY CITED

Beijing NONGMIN RIBAO in Chinese 9 Dec 85 p 2

[Article by Min Yaoliang [7036 5069 5328]]

[Text] At the beginning, when the countryside began contracting production and responsibility down to the household level, people were all talking about it, but after a few years, actual experience showed that the party's policies suited objective reality, and these measures gained immense popular support, for the peasants who had been poor for thousands of years had now obtained enough to eat and wear. And with this, everyone's understanding is now more or less the same. Now, the grain production problem has lead to various discussions such as eliminating the monopoly purchase and distribution system for agricultural products, and the further adjustment of the rural industrial structure. The correct analysis of the situation and maintenance of reform is critically important in promoting the further development of the rural economy.

Since the 3d Plenum of the 11th CPC Central Committee, economic reform centered on the responsibility system has been implemented widely throughout the country, and we have basically done away with the traditional mode of the single collective economy form composed of "collective management, collective labor and centralized distribution," and began the preliminary implementation of a new setup with coexisting diversified economic forms and diversified management forms with a cooperative economy based mainly on farm family management. And thus we have enabled one billion farmers to become the masters of the cooperative economy, not only in name but is actuality, starting up a new mechanism for the development of the rural economy and injecting unprecedented vigor. Within a very short period, China's rural production has achieved unexpected accomplishments with universal appeal, and there have been basic changes in the situation of shortages in major agricultural products, such as grain and cotton, which we have had for a long time. Last year, the grain used per capita was 800 jin, reaching the world average for the first time. This indicates that the productive strength of China's agriculture has reached a new level.

This year, the Central Committee and State Council judged the hour and sized up the situation and began the second stage of reform in the countryside having the primary features of eliminating the monopoly purchase and distribution system for agriculture products, implementing contract purchases and adjusting the rural industrial structure. This is a major policy decision to hasten the realization of the commercialization, specialization and modernization of the rural economy, in order to enable farmers to become rich as soon as possible. Actual experience shows that the outlook is good for the second stage of rural reform. It promotes the rational circulation and organization of rural resources, funds, technology, labor and other key elements of production, and aids the proper disposition of the rural industrial structure, opens up new employment opportunities and sources of income for farmers and furthers the transformation of the Chinese countryside from a closed, self-sufficient economy to an open, commercialized economy.

According to predictions by concerned departments, this year the total national grain yield will be less than last year and we much analyze this problem concretely. First, this year we initiated the reduction of some grain land and expanded the area for cash crops in order to adjust the rural economic structure, and this portion of the reduction is within expectations; second, natural calamities have been quite severe this year. In some areas in the south, early drought was followed by late waterlogging, creating reduced yields of summer grain and early season rice. The three northeast provinces have been struck by severe flooding and waterlogging, and a considerable portion of grain fields have no yield. Third, farmers' enthusiasm for planting grain has been affected, and the input of both animate and inanimate labor has been reduced. There are many factors for this, but the main one is because the whole price system has not been smoothed out, and in the past two years, the sales price for 22 primary agricultural means of production has risen on a rather broad scale, increasing the cost of agricultural production. In some areas, farmers feel that it does not pay to grow grain, and so have reduced their investment in grain production.

We must see that this year's reduced grain yield is not the same as the big rises and big falls of past agricultural production. This is because on the one hand, we are adjusting the industrial structure and reducing the area of grain fields on the foundation of six successive years of growth in agricultural production and of having basically solved the problems of feeding and clothing our people, and the slight reduction this year in grain yield can by no means create shortages in grain supplies; on the other hand, in the past peasants engaged solely in grain, and once grain yield fell, it inevitably led to the stagnation and decline of the rural economy, and created overall shortages in the urban and rural markets and even in the entire national economy. This year, even though grain yields are down a bit, the area planted to various cash crops showed a net expansion of over 53 million mu (excluding the downward adjustment by more than 25 million mu of the area planted in cotton, in accordance with national needs), and further, it shows tendencies for overall yield increases. There is sustained development of village and township enterprises throughout the country. And so for the vast majority of places, farmer's income can still increase some over last year's.

Indeed, due to the fact that China is a large country, the development of grain production between various regions is not balanced, and also because the leadership in a few places lacks an overall analysis of the yield and demand situation for grain as well lacking analysis of the funding sources and transport capacity for grain brought in from outside, they have inappropriately reduced the grain area and relaxed grain production. These are faults in work. Viewed macroscopically, we must change the long-standing situation of an irrational rural industrial structure and of uncoordinated development, and set up a rational industrial structure that meets market demand and suits the special characteristics of different places, and create a suitable industrial policy and a full service system that meets the needs of developing commercial production. This is a long process. Consequently, the adjustment of the industrial structure is inevitably a long-term task of rural reform. We must not be hesitant and irresolute, nor must we be overly hasty, but we should fully consider the endurance capacity of the nation and its farmers, and have a good grasp of the "degree" of sustained, coordinated development for various rural fields, and actively, steadily adjust the industrial structure.

In some areas, farmers' enthusiasm for growing grain is not high, and this of course, is a problem that requires conscientious study and solution. But the crux of the problem is precisely that price reform has not kept up and the price system has still not been smoothed out. And so the essence of the second stage rural reform, characterized by the elimination of the monopoly purchase and distribution system for agricultural products and allowing the rural industrial structure to gradually become more rational, is the shift from a planned economic model through administrative orders to a commercial economic model combining both market forces and planning. In the period while the new model replaces the old, the adjustment mechanism for the rural economy will be in a process of alternation and the situation will be unusually complex. We must recognize that the problems involved in the second stage of rural reform are such that the countryside is far from able to solve them on its own, and objectively require the simultaneous coordinated reform of the urban economy and the whole national economy. In particular, it requires the reform of the price system, to allow prices to conform to value. Only in this way will we be able to perfect the economic adjustment mechanism, reduce conflict during the transition between the old and new models and the risks that it brings, and so create good economic and social environments for the thoroughgoing development of rural reform.

We can see from the above that in examining the current rural economic situation, we must first distinguish between principle and secondary aspects. We must not only correctly evaluate the rather concrete accomplishments of growth in the various fields of rural production and of increases in farmers' income, and we must especially recognize that through the reform adjustments over the past few years, China's rural economic system has already begun to break out of the closed, rigid structure formed over a long period, in order to lay the foundation for realizing a benign cycle in the rural economy from here on out, and for achieving sustained, stable, coordinated development. These are even more important accomplishments, and are the elements which will play a role for a long time from here on out in the development of the rural economy.

Of course, while affirming these accomplishments and principle aspects, we must correctly recognize the problems and secondary principles of moving ahead, going forward a step and examining a step, take from this the needed experience and lessons, seek out methods for solutions, and stress increasing foresight and the level of consciousness, and so take preventive measures.

To sum up, there is no basis for feeling frightened out of one's wits about the problems that have appeared in the process of rural economic reform, and because of these, doubting the direction of the reforms or having one's confidence in the reforms shaken. Actual experience proves and will continue to prove that there is no way out without reform, and that our path of firm confidence in reform is correct.

The party Central Committee, in its "Recommendations" for formulating the Seventh 5-Year Plan clearly pointed out that, "Only by not missing the opportunity for rooting out the accumulated abuses of the currently implemented system which constrict the development of productive forces, and by gradually setting up various management systems brimming with vitality and vigor, will we be able to guarantee the sustained development of the Chinese economy for the next five years, ten years, twenty years or even longer." The "Recommendation" pointed out a "basic guiding principle" of social and economic development during the Seventh 5-Year Plan, that is "firmly place reform at the front position, allowing reform and construction to suit each other, and promote each other." We must have full confidence, do a solid job, and while enlivening the microscopic, strengthen macroscopic leadership, resolutely press forward with rural economic reform, and realize the overall prosperity of the rural economy.

12452
CSO: 4007/196

AGRICULTURAL ACHIEVEMENTS OF PAST 5, NEXT 5 YEARS REVIEWED

Hong Kong CHING-CHI TAO-PAO [ECONOMIC REPORTER] in Chinese 1 Jan 86 pp 59-61

[Article by Wei Nong [7279 6593]: "From Enough To Eat and Wear to Being Comparatively Well-Off: An Overview of Agriculture During China's Sixth and Seventh 5-Year Plans"]

[Text] In 1986, China entered the Seventh 5-Year Plan Period for development of the national economy and society. State Council Premier Zhao Ziyang noted in a talk about the significance of the Seventh 5-Year development plan that China's economic situation is vastly different today than at the end of 1980 when the Chinese government proposed further readjustment of the national economy and resolving serious imbalances in proportional relationships. Economic activity in China in the past has been chiefly to solve problems in providing the people enough to eat and wear; in the future, it will begin to shift from enough to eat and to wear to being comparatively well-off.

This article intends to review the past and take a look at the future of agriculture during the sixth and seventh five-year plans.

I. Review of the Sixth 5-Year Plan Period

Smashing Advances in Agricultural Production As a Result of the Spread Throughout Rural Villages All Over the Country of Family Responsibility Systems Linked to Output.

During the Sixth 5-Year Plan period, China's rural villages successfully conducted a reform of the economic system. The spread throughout rural villages all over the country of family responsibility systems linked to output fundamentally altered the old system that had shackled development of agricultural productivity, and gave impetus to the burgeoning of agricultural production. The most salient characteristics of the agricultural economy during this period were as follows:

1. Rapid Development of Agricultural Production with Sustained Fairly Great Economic Growth Year After Year

The gross output value of agriculture for 1984 in terms of present prices was 503.4 billion yuan. In comparative price terms, this was 58.4 percent greater than in 1980. Growth averaged 12.2 percent per year. In 1984, the gross output value of agriculture was 361.2 billion yuan versus 162.72 billion for 1980, a 198.48 billion yuan increase or a 1.23 fold increase over 1980. Output overfulfilled plan by 27 percent for a speed of growth greatly above the 21.7 percent called for by plan. Output quotas for most agricultural products during the Sixth 5-Year Plan were mostly fulfilled ahead of schedule. Quotas for grain, cotton and oil-bearing crops were fulfilled 2 years ahead of schedule. Comparison of 1984 with 1980 shows an increase in gross output of grain from 641.1 billion jin to 814.6 billion jin; an increase in gross output of cotton from 54.13 billion dan to 125.17 billion dan; and an increase in gross output of oil-bearing crops from 153.81 million dan to 238 million dan. In 1985, output of grain and cotton was expected to be lower than for 1984 as a result of reductions in the growing area plus the affects of natural disasters; nevertheless, for the country as a whole output was second only to the bumper harvest year of 1984. From 1981 through 1984, average growth in outputs of grain, cotton and oil-bearing crops was 6.2, 23.3 and 13.7 percent respectively, higher than the average growth during any previous five-year plan period. With the exception of jute and ambari hemp which were restricted by plan, output of all other crops including sugar crops, tobacco, and silkworm mulberry, plus output of livestock products, aquatic products, and forestry products as well as the area afforested all fulfilled Sixth 5-Year Plan quotas a year ahead of schedule. Average annual growth was universally higher than for any previous five-year plan period.

In 1980, Chinese agriculture remained in rather dire straits, large scale importation from abroad of major agricultural products such as grain and cotton still being required. By 1983 the situation began to change from the import to the export of edible oil. In 1984, China became self-sufficient in cotton with some surplus. It began to export cotton, and another large cotton producing country appeared in international markets. China was also self-sufficient in grain, the staple of the diet of the Chinese people at the present time. The all-around upsurge in agriculture during the Sixth Five-year Plan provided extremely important conditions for insuring and giving impetus to development of the Chinese economy and society.

2. Gradual Move Toward a Rational Structure of Agriculture; Overcoming the Tendency of Many Years To Emphasize Only Grain Production to the Neglect of Economic Diversification into Forestry, Animal Husbandry, and the Fishing Industry; And a New Situation of Coordinated Development of the Internal Structure of Agriculture Appearing.

As a result of several years of readjustments, new changes occurred in the percentages of farming, forestry, animal husbandry, sideline occupations, and fisheries. In1984, the output value of farming declined from the 64 percent of 1980 to 59 percent, while the output value of forestry, animal husbandry, sideline occupations and fisheries increased from the 36 percent of 1980 to 41 percent.

While maintaining steady growth of grain output, within the farming industry there was a planned appropriate reduction in the area sown to grain and an increase in the area sown to cash crops. Comparison of 1984 with 1980 shows a 3.7 percent reduction in the area sown to grain, the grain growing area declining from 80.1 to 78.3 percent of the total crop growing area. The area sown to cash crops increased 21.1 percent rising from 10.9 to 13.4 percent of the total area sown to crops. In 1985, the area planted to cash crops throughout the country was further expanded by 50 million mu above the 1984 figure, and more than 8 million mu of farmland was returned to forests and pasturelands. The ratio of cash crop to grain crop growing area for the country was readjusted from the 17:83 of 1984 to 21:79, the extent of increase being greater than for any other year.

Within the structure of grain crop production, the growing area for the fine grains, wheat and rice, increased while the growing area for coarse grains such as corn, gaoliang and tubers decreased.

3. The Rise and Development of Township and Town Enterprises Gradually Becoming a Mainstay of the Rural Economy.

In 1984, there were 6.06 million township and town enterprises (including both partnership and individual industrial enterprises) in the country employing 52.06 million staff members and workers, or 14 percent of the rural workforce. Their gross output value was 170.9 billion yuan, a more than fivefold increase over the 24.7 billion yuan gross output value of 1980. In 1984, the gross output value of township and town industries accounted for 47 percent of the 361.2 billion yuan gross output value of rural society for that year. In many places in which township and town enterprises had developed fairly rapidly such as on the Chang Jiang delta in Jiangsu and Zhejiang provinces, at Foshan, Jiangmen and Zhongshan on the Zhu Jiang delta, and in Yantai Prefecture in Shandong Province, more than 60 percent of the total rural workforce was involved in township and town enterprises, and more than 60 percent of gross earnings in these places derived from rural township and town enterprises. In a small number of villages and small towns, it amounted to as much as 80 to 90 percent. Peasant income had shifted from primary dependence on farming to primary dependence on rural enterprises. Looked at in terms of the make-up of the workforce, the structure of the economy and the structure of industry, rural industry has become the main part of the rural economy in these areas.

Development of township and town enterprises has not only had a tremendous effect on the rural economy, but also will play an increasingly important role in the industrialization of the country and in building a socialism that is uniquely Chinese in character. Finding jobs for the surplus rural workforce and avoiding the thronging of population into cities is a major problem in the building of socialism in China. By developing township and town enterprises, the peasants can leave the soil without leaving the villages. Entry into factories rather than into cities can accommodate large numbers of the rural workforce. In addition, some labor intensive enterprises in cities and enterprises in cities that use raw materials that come from rural villages can be transferred to rural village in a planned way for saving on state investment and making the peasants become prosperous, the pattern of agricultural production thereby become more sensible, and new relationships between cities and the countryside coming about in which cities and the countryside gradually help each other out and industry and agriculture are linked for coordinated development and common prosperity.

4. Marked Rise in Economic Effectiveness; Rapid Increase in Peasant Income; And Marked Improvement in Living Standards.

Reform of the system for managing the rural economy, equitable readjustment of the structure of industry, the rise and development of township and town enterprises, and the dissemination and use of science and technology have brought about marked rise in the rural labor productivity rate. Figured in terms of comparable prices, the rural labor productivity rate was up 54.2 percent in 1984 over 1980. The productivity rate of cultivated land also saw a fairly large rise, the output value of farm crops per mu of cultivated land being 4017 percent higher in 1984 than in 1980. The commodity rate for agricultural products in 1984 increased from the 49.6 percent of 1980 to 53.3 percent. Figures for increase in the amount of social procurement in 1984 as compared with 1980 were as follows: Unprocessed grain, 94.1 percent; cotton, 1.2 fold; edible vegetable oil, 65 percent; fresh eggs, 50.9 percent; porkers, 6.8 percent; and aquatic products, 28.7 percent. The rise in rural economic results was also reflected in expenditures as a percentage of total income, which declined from 39.1 percent in 1980 to 36.6 percent in 1985. Net income also rose correspondingly from 60.9 to 63.4 percent.

Accompanying the rapid increase in peasant income was a marked improvement in the standard of living. According to a random sampling of income and expenditures by 31,435 peasant households conducted by the State Statistical Bureau in 600 counties in 28 provinces, autonomous regions and municipalities under direct central government administration, net income in 1984 averaged 355.30 yuan per capita (including 313 yuan from production activities and 42.30 yuan from cash or goods mailed or carried back by people who had left to go elsewhere and from government disbursed relief funds) versus 191 yuan in 1980 for a 164.30 yuan increase. From 1957 through 1980, however, peasant net income per capita has increased from 73 yuan to 191 yuan, or just 118 yuan in a period of more than 20 years. The peasants' circumstances in terms of food, clothing, items used in daily life and shelter had improved. Heartening changes also began to take place in the make-up of peasant purchases once basic problems of sufficient food and clothing had been solved, and standards rose gradually. The peasants ate more fine grains such as rice and wheat and less coarse grains. Some highly nutritional foods, high quality clothing and high quality durable consumer goods began to make their way into peasant homes. In 1984, peasant expenditures for daily necessities averaged 273.40 yuan per capita, up 55.9 percent from 1980. From 1981 through 1984, more than 2 billion square meters of new peasant housing was built, 600 million square meters in 1984.

The foregoing shows the 5 years of the Sixth 5-Year Plan to have been the best of any of the several five-year plans for agriculture since founding of new China. Solution to the problem of sufficient food and clothing for the mass of people, which new China had pursued through self-reliance ever since its founding was finally achieved during the Sixth 5-Year Plan period.

II. Outlook During the Seventh 5-Year Plan Period

Readjustment of the Rural Economic System and of the Structure of the Agricultural Industry Will Continue To Be Carried Out More Pervasively and on a Larger Scale, and Township and Town Enterprises Will Show Greater Development.

In line with development plan objectives and requirements during the Seventh 5-Year Plan period, development of agriculture will remain an important foundation for development of the entire national economy and will hold an important strategic position. Maintenance of reliance on policies and science, further improvement of production conditions and continued promotion of the all-around steady development of agriculture, has become the first program proposed among the six programs that must be conscientiously carried out for development of the national economy.

The outlook for China's agriculture during the Seventh 5-Year Plan period is that readjustment of the rural economic system and of the structure of the agriculture industry will continue to be carried out more pervasively and on a larger scale. Development of township and town enterprises as the road that must be taken for vigorous development of the rural economy must inevitably see greater expansion. Prospects are vast for agriculture during the Seventh 5-Year Plan period, and the rural economy will become more lively.

1. Continued Completion and Development of Economic Forms Such as the Family Contract Responsibility System Linked to Output, Family Operations Serving As a Basis for Encouraging Peasants To Develop Cooperation in Diverse Ways and to Work in Partnership on the Basis of Voluntary Participation for Mutual Benefit.

Family contract responsibility systems linked to output have stabilized family style operations. Peasants have become relatively independent producers of commodities, and this has caused the various production elements in rural villages to enter a new period of free formation. With future development of the rural commodity economy, producers will use family operations as a basis for cooperation in advance of and following production, and for accurate and rapid receipt of information, and there will be an increasingly urgent demand for prompt use of different modes to link production elements together to form new productivity. Simultaneous with making use of the guiding role of the socialist public ownership economy during the Seventh 5-Year Plan, family operations may be used as a basis for encouraging peasants to develop cooperation in diverse ways and to work in partnership on the basis of voluntary participation for mutual benefit, permitting a rational flow and combination of production elements including funds, the labor force and skills that must inevitably further promote development of rural productivity.

2. Expansion of the Scope of Market Regulation of Agricultural Production Under Guidance of State Plan and Further Loosening and Readjustment of Prices of Agricultural and Sideline Products, the Rural Economy Thereby Deriving New Vitality.

In 1985 China began to carry out reforms to the system of agricultural plan management and the price system in the gradual elimination of the centralized procurement and monopoly marketing system for agricultural and sideline products that had endured for the previous 30 years. Prices of agricultural and sideline products were loosened and market regulation instituted under guidance of state plan. This was the second step in reform following institution of rural contract responsibility systems linked to output. This was a major fundamental reform action relating to development of rural commodity production. During the Seventh 5-Year Plan period, these reforms will be carried out more pervasively on a larger scale, development of the rural economy thereby gaining more vitality. With the further readjustment and loosening of prices for agricutltural and sideline products, some of the problems currently existing in China's agricultural production such as agricultural production still being unable to meet market consumption demand; a certain amount of disjointedness between production and markets and between production and social demand; increase in amounts of goods but not very high quality of goods, uneveness in availability of different varieties and continuing obstacles in commodity supply channels; irrational production patterns and make-up of industry, inability to make the most of local advantages, and slowness in changing impoverished conditions in some areas can be readjusted equitably and solved fairly well.

3. Further Readjustment of the Structure of Rural Industry on the Principle of All-around Development of Farming, Forestry, Animal Husbandry, Sideline Occupations and Fisheries, and an Integration of Agriculture, Industry, Business and Transportation for Gradual Increased Specialization, Increased Production of Commodities, and Increased Modernization of the Agricultural Economy, the Better To Satisfy Society's Needs.

The structure of industry determines the scale and speed of development of the rural commodity economy. The history of the development of rural economies, both foreign and domestic, has shown that the building of farming, forestry, animal husbandry, sideline occupations and fisheries for all-around development, and of a structure in which agriculture, industry, business and transportation are integrated to take the road of complete development is an objective law for development of a rural economy, and is also a major mark of rural progress. As a result of the readjustments of the Sixth Five Year Plan period, the formerly extremely irrational structure of rural industries improved markedly; nevertheless, neither various natural resources nor economic resources in rural villages were developed and used in a completely rational way, and the irrational state of the mix of various industries and the internal structure of industries remained rather conspicuous. Different ares also developed unevenly, and full use was not made of local advantages either. The period of the Seventh 5-Year Plan saw further readjustment and reform of the structure of industries, which will have wideranging and pervasive effects on future progress in giving impetus to the development of a modern rural economy.

Readjustment and reform of the structure of rural industries has to do with three levels as follows: First is farming; second is farming, forestry, animal husbandry, sideline occupations and fisheries; and third is the rural economy of agriculture, industry, business, transportation, the construction industry and service trades.

On the farming level is rational planning of the proportions of grain crops, cash crops, livestock feed crops and crops that nurture the soil, while adhering to a policy of positively no relaxation of grain production and active development of economic diversification that makes the internal structure of farming more rational, while simultaneously readjusting crop patterns and emphasizing both quality and output value of products. Effective policies and actions are to be taken during the entire Seventh 5-Year Plan to insure steady increase in grain output. This should be used as a prerequisite for doing a good job of evening out grain production between one region and another, taking into account difference in natural conditions and transportation between one region and another. Places possessing advantages for the growing of grain should continue to do a good job of grain production, making sure it is profitable. Places lacking grain and into which no grain can be transported, will have to do what is necessary to maintain self-sufficiency. Places out of which grain cannot be transported should do all possible to convert it locally for development of a livestock feed and food industry. Places having a fairly well developed commodity economy that are readily accesible to transportation may suitably reduce their grain growing area, may plan the growing of various cash crops and livestock feed products as market demand dictates, and may select the optimum use of land. In mountain regions, grasslands and lake areas, land should continue to be withdrawn from cultivation for reversion to forests, pasturelands and fisheries as appropriate.

On the level of farming, forestry, animal husbandry, sideline occupations and fisheries, despite fairly marked rise in percentages for forestry, animal husbandry, sideline occupations and fisheries during the Sixth 5-Year Plan, these industries still lag farm behind both in terms of economically developed countries and the people's needs. Accelerated development of forestry, animal husbandry, the aquatic products industry and the breeding industry during the Seventh 5-Year Plan and an increase in their percentages in agriculture as a whole is a major component and task of the readjustment of the structure of industries. The emphasis in the suburbs of large and medium size cities is on development of the production of non-staple foods such as vegetables, poultry eggs and cow's milk for the urban population.

On the level of the rural economy of various industries, emphasis during the Seventh 5-Year Plan should be on planned step-by-step transfer of the surplus labor force in rural villages into other industries in a change away from engaging in nothing except agricultural production, and away from only increasing production of grain and industrial raw materials to simultaneous involvement in agriculture, industry, business, construction industries, transportation, extraction industries, the service trades and other tertiary industries. This will mean a fundamental change in having 800 million peasants being engaged in producing food. All around development of the rural economy should serve as a springboard for hastening the building of small cities and towns that become political, economic and cultural centers for rural villages and hubs that link economically cities and the countryside.

4. Need During the Seventh 5-Year Plan for Substantial Development of Township and Town Enterprises As the Required Road for Vigorous Development of the Rural Economy.

The state program for guiding development of township and town enterprises is as follows: active support, rational planning, correct guidance and improved management. In addition is the carrying out of the principle of benefits to those who invest in and run the enterprises, encouragement to peasants to run village and small town enterprises, facilities at agricultural bases and facilities for the storage and transportation of commodities, and promotion of the building of commodity bases for special agricultural and sideline products and of export bases. Generally speaking, the running of township and town enterprises is rooted in agriculture and serves agriculture, the emphasis being on development of processing industries for agricultural products and the development of services industries for storage, packing, transportation, and the supply and marketing of agricultural products following their production.

Development of a commodity economy requires a close linking of agricultural production and processing. Unless processing industries for agricultural and sideline products are developed, rural villages will be unable to free themselves from simply being suppliers of raw materials. In addition, looked at in terms of trends in the development of agriculture both at home and abroad, farming and breeding industries in combination with processing industries will become a major industrial sector in rural villages and an important fountainhead for expanding the amassing of wealth by rural villages. In the future, newly developed processing industries for agricultural and sideline products will be concentrated in rural villages. In places having requisite conditions, peasant operation of small mining industries, small hydroelectric power industries and construction materials industries will be supported and encouraged by the state so long as state regulations are observed and resources are protected. In some rural villages in economically developed areas, village and small town enterprises will be operated as processing industries in conjunction with large industries to serve the export trade as actual requirements and their own circumstances permit. It has been preliminarily estimated that by the end of this century China's rural workforce will increase to 450 million, that the workforce engaged in farming will decrease to less than one-third of the total, and that the workforce engaged in township and town enterprises, in forestry, animal husbandry, the fishing industry and other tertiary industries will increase to more than two-thirds. In the development of township and town enterprises during the Seventh 5-Year Plan, some of the labor force in rural villages will gradually shift out of farming in an orderly way, the structure of the rural workforce thereby developing more rationally.

5. Acceleration of the Transformation of Agricultural Skills and Development of Rural Intellectual Ability; Vigorous Dissemination of Agricultural Science and Technology; and Promotion of a Steady Rise in the Level of Agricultural Technology, Product Quality and Economic Results.

A strong material and technological foundation is a necessary prerequisite and an important aspect of modern socialist agriculture. Despite substantial improvement and upgrading during the Sixth 5-Year Plan of production conditions and the level of science and technology in China's agriculture, they remained backward in comparison with some economically advanced countries of the world. During the Seventh 5-Year Plan, attention is to be directed to economic effectiveness in proceeding from realities and on the basis of needs and capabilities to carry out mechanization, semi-mechanization and the use of hand tools at the same time, the use at the same time of manpower, animal power and electro-mechanical power, the use of a combination of engineering and biological measures, the use of a combination of modern science and technology and fine traditional skills, the transformation of agricultural techniques serving as a means for achieving "greater output from proper investment in less cultivated land." Active efforts will be made to develop rural transportation and energy facilities, to increase farmland capital construction, to to develop vigorously those industries that are useful to agriculture, to provide more and better quality chemical fertilizers, pesticides, diesel fuel, mixed livestock feeds, plastic sheeting, and transportation and processing machines used in agriculture, and to improve the levels of intensivity and modernization of agriculture. In addition will be further improvement of facilities for education in agricultural science and technology, the development of intellect, and the raising in a planned way of the educational level of able-bodied rural youths to a general intermediate level. New science and technology will be disseminated and put to use to a greater extent in rural villages, and the entire rural economy will gradually move away from being labor intensive to being technical intensive and knowledge intensive.

In accordance with the proposal of the CPC Central Committee, during the Seventh 5-Year Plan the gross output value of agriculture will have to increase 6 percent annually. Such a goal is both a positive one and allows some room for maneuver. With further reform and readjustment of the rural economic system and the industrial structure, development of township and town enterprises, scientific and technical progress and development of intellect, and accelerated efforts to transform agricultural techniques, realization of the foregoing objectives is possible and completely credible.

9432
CSO: 4007/194

NATIONAL

RENMIN RIBAO REVIEWS RURAL ECONOMIC DEVELOPMENT

HK011137 Beijing RENMIN RIBAO in Chinese 24 Apr 86 p 2

[Article by Chen Jian [7115 0256], Gao Hongbin [7559 7703 6333] and Liu Yunzhou [0491 0336 3166]: "Five Years of Creation and Development--Review of Rural Economic Development During the Sixth 5-Year Plan Period"]

[Text] Toward the end of 1978, or on the eve of a great reform in China's countryside, a research report submitted by a number of U.S. Sinologists to the U.S. Congress forecast: "The fundamental obstacle to China's economic development is the unsolved problem of agriculture. In the coming 10 years, the average rate of growth of China's total agricultural output value will be between pessimistically 2-3 percent and optimistically 4-5 percent."

With only 7 of the 10 years gone, our country's agriculture has answered the above forecast with world-shaking changes.

A Historical Breakthrough

In 1980, when the Fifth 5-Year Plan had just ended, even we ourselves did not expect that there would be a historical breakthrough in the long stagnant agriculture during the next 5 years.

During the period of the Fifth 5-Year Plan (1976-1980), per capita grain share grew slowly. The annual rate of population growth stood at 1.3 percent. Grain output rose 2.4 percent per year. The amount of traditional grain exported from provinces was on the decrease and that imported was on the increase. In 1980, large traditionally agricultural country like ours imported about $2 billion worth of agricultural products from the United States. Who would expect that there would be such a historical breakthrough 3 to 5 years later? Yet our progress in the period of the Sixth 5-Year Plan did show a breakthrough.

In 1985, our total agricultural output value reached 451 billion yuan, an increase of 189 percent over 1980. Annual increases in total rural social output value from 1981 to 1985 were 4.7 percent, 10.1 percent, 10.9 percent, 17.1 percent and 15.6 percent respectively. The pace of growth exceeded that witnessed in any period since the founding of the PRC. Total grain output rose 23 percent compared with the Fifth 5-Year Plan. Grain exports showed an increase of more than 300 percent. The total volume of agricultural and sideline products procured rose more than 200 percent compared with the Fifth 5-Year Plan. The total value of town and township enterprises rose by around three times. Peasants' per capita income more than doubled. By the end of 1985, rural savings deposits reached 72 billion yuan, an increase of 265 percent over 1980.

It can be said without the least exaggeration, that the Sixth 5-Year Plan was the best period in our history since the founding of the PRC. It was five years of economic growth and breakthroughs in China's countryside, and five years of creation and development.

Features and Patterns

The growth and development of the rural economy during the period of the Sixth 5-Year Plan was marked with new features and patterns.

First, it was all-around and sustained growth. Except for freshwater fishing, all agricultural products, and even the rural secondary and tertiary industries, chalked up the highest production levels in history during the period of the Sixth 5-Year Plan.

Second, growth was of a markedly innovative and exploratory nature. A relatively prominent manifestation was that while the secondary and tertiary industries with modern features began to shape up and the proportion represented by them was growing rapidly, the percentage of economic crops in the planting trade and that of forestry, animal husbandry, fishery, and so forth in mass agriculture went up.

Third, efficiency was raised. In the 1981-1984 period, the percentage of agricultural labor in national labor dropped from 72 percent to 68 percent. In the same period, grain output showed an increase of more than 80 million tons, and the total value of agricultural and sideline products procured rose from 95.5 billion yuan to 144 billion yuan. Output value accounted for by each agricultural worker registered an average annual increase of 9.1 percent.

Fourth, it was "extraordinary growth," or a performance exceeding normal expectations. Given the lack of investment funds and of large material supplies from the state, and also the tightened credit conditions last year, town and township enterprises mushroomed and boomed. An average country's proportion represented by agriculture shrinks from year to year in the process of modern economic development. The percentage accounted for by our agriculture in the national income in these 5 years rose instead from 35 percent in 1978 to 44 percent in 1984.

Fifth, simultaneously with overall economic growth, peasant income showed a general increase. What is worth noting is that from 1981 to 1984, a peasant household's income from individual operations rose from 85 yuan to

288 yuan, an increase of 339 percent. This pointed to a rapid improvement in the peasants' ability to run operations on their own.

What Is Behind the Soaring Index

Rural changes not only find expression in the rise of economic indicators. What is more important, prominent or significant is the economic reform involved.

A fundamental change has been the change in the economic system. The two most important reforms which called for the smashing of the commune system of high concentration marked by "large size and public ownership," and gradually dropping the planned state purchase and marketing system, enabled 180 million households committed to production lined with remuneration to gradually become independent commodity producers operating on their own. Households have come alive as cells of the rural economy. The rural economy composed of a myriad of such cells has also come to life as a whole.

Almost as important as the change in the economic system is the change in rural industrial composition. The development of mass agriculture and the emergence of secondary and tertiary industries heralded a change in the abnormal state of the rural economy, having long been purely a food economy. This enabled the whole rural economy to show more flexibility, more results and more rationality in its development as a combination of all lines and trades. The emergence especially of town and township enterprises brought about a rapid change in rural industrial composition, the employment pattern and even the various aspects of the peasants' lives and the countryside as a whole. Far-reaching effects will also be produced.

The implementation of major policies in the above two respects enabled the countryside to become, economically, our country's most active world. New economic entities, new economic relations, and new economic growing points have sprung up like mushrooms. The activation of the key elements of production, the upgrading of the methods of exchange and the development of a unified market have made for a breakaway from the pattern of long isolation from the outside. The new era of the development of urban and rural areas simultaneously has begun.

A Long Way from Our Ultimate Goal

Tremendous achievements have been scored in rural reform. But what has been achieved is a long way from our ultimate goal. To get ahead, the most important thing is to be sober-minded. When the curtain rose on the Seventh 5-Year Plan, the problem of greatest concern to people was: What would be the development of the rural economy in the coming 5 years? A fundamental estimate was that the reform had still not enabled the rural economy to finally leave the stage of low-level development. The main problem confronting the countryside was that economic development had still not been carried far enough and that productivity was still at a relatively low level.

The means of production in the countryside are still backward. Most of the rural areas are at the stage of manual or semi-manual and semi-mechanized operations. Small peasant-intensive cultivation with very low labor productivity is still the chief mode of production in agriculture. According to statistics, our country has 31 tractors for every 1,000 hectares of cultivated land and is far behind when compared with developed countries.

The year 1984 has so far been the one with the highest grain production in our country. But per-unit grain output stood at 240.5 kilograms. This is not only lower than that of the United States with a small population and plenty of land (246.5 kilograms), but also that of Japan with a large population and little land (370 kilograms), and that of Hungary (333 kilograms). In 1984, every farm worker in our country provided for three people. In India it was 5 people, 11 in the Soviet Union, 22 in Japan and 67 in the United States. In 1984, our country's per capita grain share stood at 393 kilograms (355.5 kilograms last year). The average world level was 429.5 kilograms. It was 1,564.5 kilograms in the United States.

Most peasants have become well fed and clothed. But the level of having a relatively comfortable life is still a long way off. In 1984, the per capita savings deposit ratio between our country's rural and urban residents was 1 to 4, and the per capita social output value ratio was 1 to 3.5. The productivity of agricultural and industrial workers based on output value showed a ratio of 1 to 6. The gap between urban and rural areas is still obvious. The country still has as many as several tens of millions of urban residents who have not solved the problem of being adequately fed.

A more serious problem is that the quality of peasants still falls short of the needs of modernization. The cultural level of youths and adolescents is not high. Adults are not adequately enlightened intellectually. Peasants' level of knowledge, their mix of knowledge, their ways of thinking and their ideas and concepts call urgently for being upgraded and elevated. Another serious problem is ecology. The cultivated area is being reduced at a pace of more than 1,000 mu per year. Weathering, salinization, and the decline in soil fertility have still not been brought under control, while new cases of pollution and ecological deterioration have shown further development.

In the switchover from the old to the new economic system, a series of disharmony problems have appeared. In upgrading and changing traditional systems, ways and means of management and relevant knowledge, we have fallen far short of meeting the needs of rural economic development. On the one hand, thousands upon thousands of peasants have strengthened their position in making their own decisions; on the other hand, the once forceful administrative orders are weakening in their role. On the one hand, the regulatory role of market forces is being strengthened; on the other hand, the new commodity economy environment leaves much to be desired.

The legal, taxation, pricing, credit and other systems are in their initial formation stage. Various fundamental facilities for economic development and public welfare undertakings have been built quite inadequately. The relations between urban and rural areas, and between workers and peasants, and various fundamental socialist economic relations have still not been straightened out. This is a specific period of old problems existing in abundance and new ones cropping up endlessly, and of old systems heading for extinction and new ones not having been finally established. Peasants, rural areas and rural work are all confronted with the tasks of continuous readjustment and continuous upgrading. The only way out is to carry out our work firmly and unswervingly along the path of reform.

What Did the Sixth 5-Year Plan Leave Behind?

The Sixth 5-Year Plan brought China's rural areas to a historical stage never before witnessed. The speedy progress of reform and complicated economic changes made it impossible for us to quickly make relatively accurate and careful summations of this colorful chapter of history. The more so, the greater the importance of now summing up matters of rural economic reform and development during the Sixth 5-Year Plan is underlined.

The rural reform, marked with the large-scale assignment of responsibility to each household and the abolition of the fixed purchase quota system has initially brought about the formation of a mechanism that allows self-choice, self-creation, and self-development by a myriad of peasants seeking results and wealth, and a gradual start to specialization and social development. This mechanism which stimulates rural progress is unprecedented in the history of our social development. This is undoubtedly the most important result of the Sixth 5-Year Plan and also the most important condition for continuous rural development during the Seventh 5-Year Plan. Keeping a grip on it holds out great hopes for the future.

The Sixth 5-Year Plan is behind us, but the period of creation and development is endless.

/12858
CSO: 4007/391

NATIONAL RURAL COOPERATIVE DEPOSITS REPORTED

Beijing NONGCUN JINRONG [RURAL FINANCE] in Chinese No 5, 1 Mar 86 p 38

[Text]

End of December 1985 unit: 10,000 yuan

Region	Total Deposits	Total Deposits by Cooperative Members	Per Capita Savings		Per Capita Savings +,- Compared to Last Year
			yuan	position	
National Total	7,248,974	5,648,108	67		15
Beijing	180,373	94,464	244	1	71
Shanghai	140,363	73,003	162	2	29
Tianjin	80,139	56,080	152	3	40
Guangdong	893,448	759,638	152	4	46
Liaoning	333,408	282,988	125	5	26
Shandong	980,266	797,594	118	6	21
Shanxi	280,885	232,316	111	7	21
Hebei	619,500	507,784	107	8	21
Zhejiang	407,412	291,599	85	9	25
Jiangsu	558,593	415,419	79	10	15
Jilin	147,045	117,618	79	11	8
Fujian	179,724	141,491	63	12	15
Heilongjiang	146,360	127,487	62	13	11
Nei Monggol	92,831	77,720	54	14	10
Ningxia	21,765	16,939	52	15	9
Henan	413,927	346,706	50	16	9
Shaanxi	155,320	119,639	48	17	13
Hubei	231,671	181,267	45	18	6
Xinjiang	55,377	39,518	43	19	3
Jiangxi	131,493	104,621	37	20	8
Hunan	225,698	173,099	35	21	8
Sichuan	393,909	290,378	33	22	8
Anhui	201,183	144,865	32	23	8
Gansu	77,525	51,922	30	24	7
Guangxi	120,122	98,366	29	25	8
Qinghai	17,620	6,665	22	26	1
Yunnan	114,709	66,845	22	27	5
Guizhou	48,308	32,077	12	28	2
Xizang	--	--	--	--	--
Taiwan	--	--	--	--	--

/8309
CSO: 4007/389

NATIONAL AGRICULTURAL BANK DEPOSITS REPORTED

Beijing NONGCUN JINRONG [RURAL FINANCE] in Chinese No 6, 16 Mar 86 p 16

[Text]

End of December 1985 unit: 10,000 yuan

Region	Total Deposits	Completion of tasks %	Per Capita Savings	Per Capita Savings +,- Compared to Last Year
Beijing	11,147	114	28	9
Tianjin	33,324	280	90	27
Hebei	71,241	311	15	5
Shanxi	26,796	190	12	7
Nei Monggol	16,698	91	11	5
Liaoning	25,211	122	11	7
Jilin	16,259	157	10	7
Heilongjiang	58,955	169	29	6
Shanghai	82,474	303	184	56
Jiangsu	102,384	221	19	6
Zhejiang	94,923	308	27	8
Anhui	30,198	195	6	2
Fujian	79,013	657	35	13
Jiangxi	49,578	127	17	6
Shandong	26,833	175	3	2
Henan	85,484	242	12	4
Hubei	79,300	267	19	8
Hunan	54,940	160	11	3
Guangdong	147,535	264	29	11
Guangxi	50,812	311	15	4
Sichuan	140,647	217	16	5
Guizhou	20,633	120	8	2
Yunnan	52,211	251	17	5
Shaanxi	50,857	223	20	6
Gansu	26,209	330	15	5
Qinghai	16,017	703	54	12
Ningxia	9,071	454	28	7
Xinjiang	94,998	137	104	17
Xizang	Statistics are unavailable			
Taiwan				

/8309
CSO: 4007/389

JINGJI GUANLI ON NEED TO REFORM AGRICULTURAL TAX

HK250823 Beijing JINGJI GUANLI in Chinese No. 3, 5 Mar 86, pp 14-16

[Article by Chai Nong [2693 6593]: ""The Agricultural Tax System Must be Reformed"--Edited by Lin Daojun [2651 6670 0689]

[Text] The existing agricultural tax system is extremely unsuited to the current situation of the rural commodity economy. It must be speedily reformed. We shall now briefly state our views as follows:

I. Existing Agricultural Tax System No Longer Suitable For Use

The agricultural tax we are currently collecting follows the "PRC Agricultural Tax Regulations" compiled in 1958. These regulations were formulated in the initial period of our country's cooperative transformation of agriculture and on the basis of a self-sufficient and semi-self-sufficient economy with grain as the chief factor still ruling in the rural villages. It is a tax in kind mainly for grain collection. The rural production cooperatives constitute its main collection objects. Tax computation is based mainly on past assessment of the yearly production volume of grain and the output volume of other crops must be converted in terms of grain for purposes of computing the tax. According to the regulations: "The agricultural tax is mainly for grain collection. Taxpayers having difficulties in delivering grain may deliver other agricultural products or make cash payments." In the case of a portion of agricultural and forestry special products the normal production of which cannot be assessed, tax collection may be made according to actual receipts, and there are cases in which tax payment is exempted. Peasants' income from livestock or poultry raising and income from household sideline production, provided use of cultivated land is not involved, are all exempted from the agricultural tax. In regard to stock raising income, localities in stock raising areas have made separate arrangements and the stock raising tax is collected on the basis of the number of animals or on the income of the year concerned. As for the agricultural tax rates, a regional differential and proportionate tax system is enforced throughout the whole country. In general, each county has its own tax rate. In the event of a natural disaster affecting farming or because of other causes, tax payment is difficult, the tax may be reduced or exempted. Ever since the assessment at that time of the normal annual output and determination of the tax rates, no big changes have been made. Only certain adjustments were made according to changes in economic conditions. Changing enforcement in the countryside of the system of contracted responsibilities on the household basis with payment linked to output collection of the agricultural tax to delivery or clearance per household would greatly facilitate the peasants' payment of the tax.

In 1981, the State Council promulgated "Certain Regulations Relative to Collection of the Agricultural Tax on Agricultural and Forestry Special Products," and this has clarified the scope of tax collection on agricultural and forestry special products. In May 1985, it further issued a circular stipulating that collection of agricultural tax be changed from payment in kind to payment in cash. All these measures have played an active role in promoting the development of agricultural production. Nevertheless, the existing system of agricultural tax is still unsuited to the development of the rural commodity economy. Moreover, some of the contradictions are increasingly outstanding and protruding. This is because the existing agricultural tax system, which takes grain as the principal factor, was developed from the "public grain" system of the revolutionary bases. At that time, the rural economy was principally a self-sufficient or semi-self-sufficient economy. Industry and commerce were scarce and the peasants' production basically was the planting of grain and hence calculating grain collection on the basis of grain was in harmony with the economic condition of the times. Now, with the development of the rural commodity economy, if we should still stick to the concept of "public grain," the tax collection system would come into conflict with the commodity economy. The reasons are: (1) With the development of the commodity economy and strengthening of the relations between the urban and rural areas, the door for rural residents' production and operations has become increasingly opened and the sources of the residents' income have constantly increased. To continue to collect tax only on cultivated land would bring about the phenomenon of the basis for tax collection being dislocated from the rural residents' income. (2) With the development of the commodity economy, the uses of land in the countryside have become increasingly widened and more and more land has been used for industrial and commercial purposes. The same amount of investments on well-located land and land with good communication facilities can obtain a much larger income. It would then be unreasonable not to collect any tax on this type of land or to just collect from it a tax equivalent to that on farmland. (3) A commodity economy demands the producer make full utilization of land in accordance with market needs, to carry out diversified forms of production, to satisfy market needs, and generally to attain a much larger value. To use grain as the basis for computing the tax for collection cannot be suited to the demands of the law of value. (4) Following the development of the commodity economy, the role of currency has become increasingly bigger and exchange and settlement are all carried out in terms of money. When the rural residents sell their products they also receive money. To collect the tax in kind from the peasants would only add to the public's difficulties in paying their taxes and be injurious to promoting commodity circulation.

Since the 3d Plenary Session of the 11th CPC Central Committee, development of rural commodity production has been shown principally in three directions: First is the rapid development of rural industry, tertiary industry, and agricultural sideline production. Second is the increase in production avenues. Certain household sideline trades have become the major trades of specialized households, while persons engaged in tailoring, building, and carpentry all have fairly large incomes. They do not pay any agricultural tax or industrial or commercial tax and literally speaking a tax vacuum exists. Third is the rise in the commodity rate of agricultural products. The peasants plant different kinds of crops, but the burden of the agricultural tax remains the same. In comparison, the tax burden borne by peasants planting grain is high. This is highly injurious to the development of grain production and is also not fair.

Regarding the agricultural tax itself, it has the following major problems:

1. Inaccuracy in area of land used in tax computation. For many years, much land has been used in the development of town and township enterprises, in farmland water conservancy work, and for sundry rural construction projects. Land used for such purposes is no longer cultivated land but is still being treated as "cultivated land" in computing the agricultural tax. This has brought about the situation that in certain regions the area of cultivated land subject to the agricultural tax is larger than the actual area of cultivated land, whereas in certain other areas, due to the removal of tombs, the opening up of barren land, and failure to include the increased land area for tax purposes, the area of cultivated land for tax computation is smaller than the actual area of cultivated land.

2. The normal year output for tax computation has been seriously dislocated from actual output, failing to reflect correctly the peasants' income level. Originally, the normal year output used for computing purposes was close to the actual output under normal year conditions. But the normal year output now used for computation was assessed on the basis of the product level many years ago, whereas now the farm productive force has risen considerably and economic crops have also greatly increased. Hence, the normal year output for tax computation now is equivalent to about 50 percent of the actual output and in some localities to about one-third.

3. The tax rate has become a false phenomenon. Originally, the tax rate was a symbol for measuring the level of the peasants' burden. But because the normal year output is dislocated from actual output and in the 1961 reduction of the tax collection tasks, the tax rate was not correspondingly readjusted, with the result that the designated tax rate has been much higher than the peasants' actual burden rate, thus failing to reflect the level of the peasants' actual burden and becoming a false phenomenon.

II. Accommodating Measures Already Adopted

These contradictions in the work relative to the agricultural tax have become rather outstanding in certain regions. To ease these contradictions, many localities, under the condition of the tax system not having yet been reformed, have adopted certain accommodating measures, the principal ones of which follow:

1. In rural villages in which town and township enterprises have developed, for the sake of increasing the income of those doing planting work in the farmland and aside from providing them with various kinds of subsidies from the profits of the town and township enterprises, the agricultural tax that

should be paid by the peasants is actually paid by the town and township enterprises out of their profits. Thus, the farmers do not have to pay any agricultural tax, so their actual income will be basically on a parity with the actual income of workers.

2. In regions in which commodity economy is relatively developed, the agricultural tax as a so-called "tax in kind" has existed in name only. In reality, arrangments have been for conversion of grain in currency terms and actual collection is made in currency. Filling in of the reports as collection in kind is only for the upper levels' consumption.

3. Due to the development of commodity economy, the income of rural residents has been no longer simply derived from agriculture nor from relying on selling "surplus grain" to the state. The sources of income of rural residents now come from many channels and in diversified forms. The income of some persons has changed from being only seasonal to being regular throughout the year. Many peasant households no longer sell grain or cotton to state grain or cotton stations. Hence, the original practice of relying on the grain stations and cotton stations to collect the agricultural tax or stationing personnel in the stations to collect the tax is no longer in vogue. To suit this new condition, some regions have separately resorted to the following collection methods: 1. In regard to households with fixed tasks of grain or cotton purchases, when the contracts for fixed purchases of grain or cotton are signed, the amount of the agricultural tax payable will be stated in the contract. When delivery of grain or cotton is made, then in accordance with the principle of tax collection first and purchasing second the grain station or the cotton station collects the tax first on behalf of the state, or the tax may be collected first by personnel stationed in the stations by the finance department. 2. Town and township enterprises collecting the tax on behalf of the state. In regions in which town and township enterprises have greatly developed, most of the households have members working in the town and township enterprises and, in particular, all households that do not sell grain or cotton to the state have family members working in the town and township enterprises. These enterprises can thus easily collect the agricultural tax from these households. 3. Village cadres (principally cashiers and accountants) doing the tax collecting work. For example, in the case of households that neither sell grain or cotton to the state nor have any family member working in the town and township enterprises, the village cadres may be entrusted to do the tax collection work. 4. Personnel from the township finance bureau directly handling the tax collection work. This should be used as a last resort; that is, it should be adopted when none of the above alternatives can be employed.

4. In order to even the tax burden, in individual cases certain regions have readjusted the normal year yield for tax computation purposes. This helps to reduce or curb the phenomenon of the tax being too heavy in certain places and too low in others. For example, in Changzhou city in recent years, some peasants have converted their grain planting farmland into fields for planting vegetables or have converted their cultivated land into pools for breeding fish in an effort to increase their income. In all these cases, the output volume has been revised upward and the taxes collected have been increased.

It is true that these accommodating measures have played a definite role in improving collection of the agricultural tax. Nevertheless, in order to basically solve the problem, real efforts must be made to do a good job in reforming the tax system.

III. Some Suggestions Regarding The Reform

In order to resolve the contradictions between the existing agricultural tax system and the rural commodity economy, it is necessary to further reform the agricultural tax system. The purposes of the reform are to put the rural taxation system in order, arouse the enthusiasm of the broad masses of peasants, enable grain production to attain a stable increase, promote rural commodity production, and achieve the development of the rural economy on all sides. In recent years, the commodity rate of grain has been rising yearly, but in comparison with other farm crops it is still relatively low and the net benefits of the grain crop are also rather small. Hence, in reforming the system of the agricultural tax, principally we should put the rural taxation system in order and not endeavor to achieve a general increase in rural taxes. At the same time, due to the development of commodity economy, other production industries and trades in the rural villages have been increasing in number. They are related to each other. Thus, in studying the reform of the rural taxation system, we must take into consideration all the other rural taxes so that there will be mutual coordination and supplementation. Consequently, our general suggestion is to change the agricultural tax into a land tax. At the same time, we should appropriately expand the products tax on the agricultural and sideline products and, regarding certain households that have a relatively large income, initiate the collection of a rural family income tax.

1. Land tax. Change the agricultural tax into a land tax. Divide land into grades, fix the tax rate per mu, and collect the tax in currency. Although in regard to land used in production, this still has the nature of a tax on land income, in comparison with the existing agricultural tax, the whole set of complex computation procedures such as assessing the normal year yield and conversion into principal grain can be avoided.

Because of the limited and fixed character of land and of the differences in natural conditions and socioeconomic conditions of different categories of land, even though under a socialist system, land earnings differ according to the different grades of land. Our land tax must play a role in adjusting these differences and let the state absorb the differences through tax collection and use them in economic construction.

In comparing land tax with agricultural tax, aside from the differences in the basis for tax computation, they also differ from each other in the scope of tax collection. Not only must land used in agricultural production be subjected to the land tax, but also land occupied by town and township enterprises, land occupied by industrial and commercial enterprises, land occupied by diversified forms of operations and pursuits, and land occupied for residential uses must all be subjected to the land tax. Thus, insofar as land used in production is concerned, the tax is not only a tax on agricultural earnings but also a tax on earnings of "land." And, in regard to residential uses, the tax has the nature of a consumption tax, urging people to practice economy in the use of land. In addition, in order to even up the burdens of the urban and rural areas, cities and towns should also be subjected to payment of the land tax. Their tax rates should be higher than those in the rural areas.

Since land tax is a portion of the differential earnings of land at various grades, the differential earnings of land at various grades should be graded and subject to different tax rates. Generally speaking, the tax rate on land occupied by industry and teritary industry should be a little higher, while the tax rate on land for agricultural uses should be slightly lower. Land that has good natural conditions, good economic conditions, and high economic effects should be subject to a higher tax rate, while land with relatively poor conditons and low economic effects should be accorded a lower tax rate. It is true that conditions of land are vastly different from each other, but grading of land should not be too minute. Generally speaking, land in a county should be divided into at most three to five grades.

2. Products tax. This is a kind of tax suited to a commodity economy. Rural villages should likewise gradually promote enforcement of this tax. Collecting the products tax on the basis of the volume of sales of products has many advantages. First, it makes tax and commodity production closely related to each other and is suited to the new situation of the development of the commodity economy in rural areas. Second, collecting the tax on the basis of the volume of sales of products is better suited to the tax-bearing capacity of different tax payers. This is because under the conditions of a commodity economy a large portion of people's earnings come from the sale of products and the size of the volume of sales is generally equal to their tax-bearing capacity. Third, different tax rates may be fixed on the basis of actual earnings from different kinds of products as well as on objective needs. This is beneficial to guiding the peasants to carry out production according to the state plan and market needs and to promoting the rational readjustment of the production structure of agriculture. Fourth, the amount of the monetary receipts of the peasants' sales of agricultural products provides by itself the objective and ready-made basis for tax computation, and there is no need for separately doing statistical and accounting work. It saves much work when compared with collecting tax on the basis of the gross income or output value. Fifth, accompanying the development of rural commodity production or price changes, the tax can correspondingly increase or decrease. Thus, it is possible, on the basis of production development, to increase the state's fiscal revenues and can also cut down tax receipts in the event of a natural disaster or a poor harvest. Naturally, products sold by the peasants are after all different from products produced by plants. It is relatively easier to collect the products tax on agricultural products purchased by the state, whereas collecting the products tax on agricultural products sold in the markets by the peasants is relatively more complex. However, through investigation and research and constantly summing up experiences, problems of this kind can readily be solved.

3. Rural family income tax. Due to the development of rural commodity economy, some rural residents have rather large incomes. It is necessary to collect from them certain income tax to readjust their net income and to enable them to make certain contributions to the state.

/12913
CSO: 4007/397

BENEFITS OF WATER CONSERVANCY DURING SIXTH 5-YEAR PLAN GIVEN

Beijing ZHONGGUO SHUILI [WATER CONSERVANCY IN CHINA] in Chinese 15 Feb 86 p 22

[Text]

Year	Effective Irrigated Area (10,000 mu)	Improved Irrigated Area (10,000 mu)	Water-Logged Area Eliminated (10,000 mu)	Soil Erosion Control Area		Improvement of Alkaline Soil (10,000 mu)	Irrigated Area by Pumped Wells (10,000 mu)	Construction of Large-Scale Reservoirs (#)	Electro-mechanical pumped wells		Drinking Water for People, and Livestock	
				Total (sq km)	Controlled Area (10,000 mu)				(10,000 wells)	Well-Irrigated Area (10,000 mu)	10,000 People	10,000 Head
Total	5395.13	14192	1775.1	118914	5504.01	894.47	5137	13	79.1	2739.54	3333.67	2095.27
1981	862.03	2746	276.8	12523	647.96	188.65	811.1	2	14.0	555.29	585.07	414.17
1982	824.80	2667	356.1	15548	629.73	135.38	1244.6	3	17.1	617.73	565.52	346.91
1983	1038.40	2979	307.2	23094	1526.32	144.44	1081.3	4	17.6	566.52	554.95	479.34
1984	1369.90	2900	435.0	32749	1200.00	226.00	1000.0	4	15.3	500.00	828.13	454.85
1985	1300.00	2900	400.0	35000	1500.00	200.00	10000.0		15.0	500.00	800.00	400.00
Annual Average Increase	1079.00	2838	355	23783	1100.00	179.00	1027		15.8	547.90	666.70	419.1

/12232
CSO: 4007/393

COMMERCE OFFICIAL VIEWS GRAIN DEVELOPMENT STRATEGY

HK291101 Beijing LILUN YUEKAN in Chinese No 3, 25 Mar 86, pp 13-19

[Article by Ding Shengjun [0002 5116 0193] at the Economic Research Institute of the Ministry of Commerce: "Theoretical Exploration of China's Strategy for Grain Development"]

[Text] Lenin had a famous saying: "Grain is the foundation of all issues." Stalin had a vivid metaphor: "Grain is the treasure of treasures." Mao Zedong exhorted people that "if we fail to pay close attention to grain, there would be great disorder throughout the country sooner or later." Chen Yun pointed out: "Grain shortages will lead to social disorder. We cannot afford to underestimate this matter." All these intelligent views are the objective reflection of economic laws and a profound summarization of historical experience. As far as a big country which has a population of 1 billion people, of which 800 million are peasants, is concerned, in the final analysis, the problem of grain is an important issue which should not be taken slightly. We must have a correct grain development strategy as our guide.

First, a strategy for grain development must be comprehensive. It must study not only grain production but also grain circulation and consumption so that production, circulation, and consumption will become its integral parts. Second, the strategy must be scientific, wherein the methods of systems engineering are used to bring to light the dialectical relationships between grain and industrial crops, between grain and diversified undertakings, and even between grain and the readjustment of the rural economic structure and the inherent laws governing their development. Third, the strategy must be practical. It must integrate theory with the practice in the grain sector, study new conditions, and formulate a new strategy. In the new period when the people's lives and the rural economy are undergoing a pattern transformation, China is confronted with the question of making an important choice for its strategy for grain development. With my scanty knowledge, I venture to air my superficial views on the question and would like to seek instruction from the theoretical community.

I. A Correct Appraisal of the Grain Situation Is the Prerequisite for Formulating a Grain Development Strategy

A correct understanding of the national condition, in particular, a realistic judgment of the nation's grain situation, is the essential prerequisite for correctly formulating a grain development strategy.

Since the 3d Plenary Session of the 11th CPC Central Committee, China's grain output has increased for many years running. In 1984, the annual grain output topped 800 billion jin, thus ending China's long history of grain shortages and there even emerged a structural and regional grain surplus. This is one of the greatest political achievements scored since the founding of the PRC. The existing grain circulation system and infrastructure apparently cannot conform with the needs of the new situation. In some localities, people have "difficulties selling or transporting grain." In the face of the situation in which people have "difficulties buying and selling" grain, we must be sober-minded and on no account must we mistake the structural and regional grain surplus emerging in a big country with a population of 1 billion people as "a nationwide grain glut."

First, China has a weak foundation in grain production. The level of its grain production is still low and its grain output is not stable and balanced. Although we have in the main solved the problem of feeding and clothing the people, more often than not, the distribution of grain and the general pattern of grain cultivation vary from place to place throughout the nation. Moreover, we have more low-quality than high-quality grain. This plus the restrictions imposed by transportation deficiencies has made it difficult for localities to regulate surpluses and deficiencies in grain in both bumper and lean years, thus creating a false impression of "a grain glut." However, even if there is a grain glut in some localities, this does not mean that we can slacken our efforts in grain production.

What warrants particular attention is that according to rough calculations, in the "old revolutionary base, minority-inhabited, border, mountainous, and poverty-stricken" areas, the number of people whose average per-capita grain ration was under 400 jin in the south and under 300 jin in the north amounts to tens of millions of people. In correctly appraising the nation's grain situation, we must both see the grain situation in the economically developed areas with superior natural conditions and not neglect the grain situation in the economically underdeveloped areas with fairly poor natural conditions. In a situation in which tens of millions of people are still without enough food and clothing, "a grain glut" is out of the question.

Second, China's average per capita grain output is still below the world average. Although China has jumped to first place in the world in terms of grain output, its average per-capita grain output has not yet reached the average world level. Calculated in terms of China's current grain-computing measure (cereals plus soybeans and tubers), in 1983, the total world grain output amounted to 3,703,900,000,000 jin, averaging 836 jin per person and that of China totaled 774.56 billion jin, averaging 756 jin per person or 80 jin lower than the average world level. In 1984, the total world grain output increased to 3,885,200,000,000 jin, averaging 877 per person and that of China rose to 814.5 billion jin, averaging 794 jin or 83 jin less than the world average.

Third, overall, the level of China's grain consumption is still not high. Most regions in the country have basically solved the problem of having enough to eat and wear. However, this is just the minimum "quantity" required by "the production of human beings themselves, the propagation of the species." ("Selected Works of Marx and Engels," Vol 4, p 2) in 1983, the average per-capita consumption of grain as a staple food in China was just 569 jin and that of meat, eggs, and fish was under 40 jin. To put it briefly, the problem of having enough to eat and wear has been basically solved in our country but our country's food-intake pattern remains quite unitary. With a changed food-intake pattern, grain consumption will certainly increase. For example, to develop the food and feed industries, we need more and more grain. The current production level far from meets our needs.

Fourth, the importing of grain in large quanitites over the last few years has strained the nation's capacity to store grain. In accordance with grain trading agreements signed with other countries, from 1980 to 1984, China imported, on the average 23.06 billion jin a year or total net imports of about 100 billion jin in 4 years time. This is an important reason the state "had difficulties storing grain" or for the so-called "crisis in grain-storing capacity."

Fifth, the peasant households do not have ample grain stocks. In a country with a population of more than 800 million peasants, the amount of grain stored by peasant households has a great bearing on the nation's grain situation. With bumper grain harvests in the last few years, the broad masses of the peasants have been willing to sell more of their grain at the higher prices than to store it and thus they have limited grain stocks. Generally speaking, the grain stored by peasant households is just sufficient to meet the needs for a farming season. Therefore, if there is a crop failure in that season, they are still well positioned to tide over difficulties but if there are crop failures in two successive seasons, they will find the going tough. In some localities, farmers eat the grain earmarked for future use.

The facts amply prove that, taking the situation as a whole, although great changes have taken place in the country's grain situation and we have undergone a process of transformation from "just having enough to eat and wear" to "a comparatively well-off level of life," still we cannot begin to talk about "a grain glut." In the final analysis, we should not regard the problem of grain as unimportant.

II. Steady Growth Must Be China's Long-term Strategic Principle for Grain Production

At present, grain production in China is confronted with a choice between continued development and declining growth. Without a doubt, we must determinedly adopt the principle of consistently maintaining a steady growth in grain production. While vigorously developing diversified undertakings, on no account must we slacken our efforts in grain production.

Seen from the current situation in China's grain production, it is entirely necessary to ensure a steady growth in grain production. Handicapped by natural conditions, it is easier for us to slip back than to advance with grain production. Grain production will decline if it is not boosted. Increasing production is like "climbing a mountain slope" and reducing production is like "sliding down a mountain slope." Once grain production slides, it will take doubled or redoubled efforts to recover. Therefore, we must strive to prevent grain production from back sliding. At present China has laid an adequate foundation for grain consumption which will expand year after year. According to rough calculations, the overall level of China's future grain consumption will on the whole increase by some 20 billion jin a year. If grain production fails to increase steadily, it will lag behind the increased grain consumption needs.

To ensure a steady growth in grain production, there must be a "quantitative" stipulation, that is, setting the strategic objective of grain development. This quantitative objective should not be set too high or it will be divorced from reality and should not be set too low because that will not help meet the objective demands and boost grain production. The strategic objective of grain production and development should be well coordinated with the state's agricultural production capability and society's spending power and also with the overall objective of the country's economic development.

According to calculations and deliberations, by the end of this century, the nation's population will be kept within 1.2 to 1.25 billion; total grain output will amount to 1,020,000,000,000 to 1,062,500,000,000 jin; and the average per-capita grain output will reach 850 jin. These figures must serve as strategic objectives for grain production which China should strive to attain in the next 15 years. If China's current grain production capacity is set at 800 billion jin and if this figure is used as the base, then grain production by the year 2000 should increase by 220 billion jin to 262.5 billion jin or an average annual gain of 14.66 billion jin to 17.5 billion jin. If 1.7 billion mu of land sown with grain crops is considered enough to ensure a steady growth in grain production, this will mean that the per-mu grain yield should increase by 8.6-10.3 jin a year. The figures are lower than the average grain production growth in the 6 years between 1979 and 1984. Of course, in making this calculation, we have considered such factors as that it will be more difficult and require greater efforts to maintain continued growth in grain production on a higher growth basis; that with the readjustment of the rural economic structure, some cultivated land will be diverted to the cultivation of industrial crops or returned to trees or grass to develop forestry and animal husbandry; and how much the people's spending power may increase and how much grain can be channeled into meat production by the year 2000. This is an objective that can be attained with great effort.

What is important at present is that we must effectively curb the tendency of overlooking the strategic position of grain, a tendency developing when there have been new changes in the country's grain situation: Some localities have failed to gain an overall picture of the rural economic situation as a whole and to satisfactorily handle the dialectical relationship between "no prosperity without engaging in industry" and "no economic stability without agricultural development," thus loosening guidance over grain production. A tendency "to give up grain production" has emerged among some farmers, resulting in a reduction of the land area sown with grain crops, less material investment in grain production, and in relaxed crop management. Some farmland has even been left uncultivated. This tendency warrants our great attention. If allowed to spread unchecked, it will inevitably lead to a gradual decline in grain production and have serious consequences.

Therefore, it is imperative to clarify the strategic position of grain in the national economy and to satisfactorily handle the relationships between grain production and diversified economy and between grain production and the readjustment of the rural economic structure. Practice over the years has proved that if we concentrate on grain production alone, our road will become ever narrower. Similarly, if we neglect grain production, our foundation for developing a diversified economy will become unsound. Only when grain production is boosted and more commodity grain is available in society can the readjustment of the rural economic structure be carried on soundly. In return, if the rural economic structure is rationally readjusted, industry and sideline occupations are developed, and the peasants' income is boosted, we will be in a better position to operate rural industrial enterprises in order to support and promote agricultural production. In this way, both grain production and diversified undertakings can be developed in a satisfactory and coordinated way, each promoting the other.

III. Developing Commodity Production Is the Only Way to Achieve Steady Growth in Grain Production

Over the last few years, the system of contracted responsibilities on a household basis has been introduced in the rural areas and mandatory production planning has been replaced with guidance production planning, and thus farmers have decision-making power over production. In 1985 the state began to abolish the system of unified state purchases of grain in favor of the system of purchasing grain through contracts, thus expanding the use of regulation by the market mechanism. The whole rural economy is moving toward a track of overall development of crop cultivation and breeding and processing industries and comprehensive operation of agriculture, industry, and commerce.

In line with the requirements of the socialist planned commodity economy and under regulation by state guidance planning, vigorous efforts should be made to develop commodity grain production so that it can better meet the needs of both domestic and international markets. This is where the key to ensuring a steady growth in grain production in the new situation lies.

The greater portion of grain produced by farmers in China at present goes to the farmers themselves. This includes their grain ration, grain for seed and fodder uses, and grain reserves, none of which are commodities or will be sold on the market. With the natural growth of the rural population and the improvement in the peasants' living standards, the peasants will correspondingly demand greater amounts of such grain, putting greater stress on quality. However, their demand is limited and will become saturated at a certain level.

The demand for grain of society as a whole is highly elastic. How far society's demand for grain can be met relies mainly on the amount of commodity grain farmers can provide. Only when we steadily increase the output of commodity grain can we provide city dwellers with more top-quality grain, create preconditions for the development of the food and feed industries, lay a sound foundation for the readjustment of the rural economic structure, and make it possible to sell our grain products in the international market. Therefore, the steady growth in grain production which we are seeking mainly refers to a steady growth in commodity grain production.

Specialization and socialization are the only way of developing commodity grain production. Practice has indicated that we cannot develop commodity grain production by relying on the practice of encouraging "every household to engage in agriculture, sideline production, and industry simultaneously and to become small but complete." The new experience gained in recent years has revealed that when the necessary conditions are ripe, such as voluntary participation by farmers, full employment of surplus labor, and improved social services, the development of grain production on an appropriate scale will be conducive to bringing the superiority of intensive operations, marginal use, and the technical effects of the labor force into play; solving the income gap and contradictions between rural inhabitants engaged in industry and those engaged in crop farming; and raising the productivity of labor and the commodity rate of products. This will also significantly raise the economic results of grain production, enabling farmers to become well off through engaging in crop farming.

Turning the favorable natural or technical conditions of certain areas suitable for grain production into commodity grain superiority and setting up production bases for commodity grain with a relatively high level of specialization and intensive development are important guarantees for the development of the commodity grain production. The state should continue to establish and run well a group of production bases for commodity grain in a planned and orderly way by arousing the enthusiasm of the central and local authorities, farmers, and all sides concerned and by inviting foreign investors to cooperate in such endeavors. This will be of great help to the nation's grain and agricultural development. All provinces and autonomous regions are encouraged to build medium-sized and small production bases for commodity grain by relying on their own efforts. As far as some grain-deficient provinces and autonomous regions are concerned, if they build a group of production bases for commodity grain, this will play a role that cannot be underestimated putting an end to the strained grain supply and demand in the grain-deficient areas, reducing their grain shipments from other parts of the country and their financial burdens resulting therefrom, and in raising their ability to readjust their own economic structures. In addition, the productivity and grain commodity rate of households specializing in grain production are markedly higher than those of ordinary peasant households. They are a vital new force for developing commodity grain production. We must support them in all fields of endeavor.

In light of actual conditions at present, in developing commodity grain production, we must concentrate on solving the following problems:

1. It is necessary to ensure strategic priorities and to increase investment in agriculture. Over the last few years, in the country's total investment, the proportion of investment in agriculture has dropped considerably. This tendency must be stopped. It is necessary to increase investment in agriculture. What is particularly important is that both accumulation and proper use of funds should be stressed so that we can make the most of our limited agricultural funds.

2. It is necessary to readjust economic policies and to increase the income of grain growers. Starting with the readjustment of economic policies, efforts should be made to readjust the internal sectors of the rural economy and the economics interests of the peasants engaged in different industries and to appropriately increase the income of grain growers. This is the guarantee for steady growth in grain production. In terms of the overall situation in economic structural reform, we should not raise grain prices but we may set some other policies and measures so that grain growers can get real benefits. For example, we can support agricultural production by operating rural industrial enterprises and by developing sideline production and can support grain production by developing the production of industrial crops; we can give grain production preferential treatment in the means of production needed by introducing the method of combining grain production with supplying chemical fertilizers and diesel oil; and we can give grain growers priority in extending loans. In order to boost the enthusiasm for developing grain production, of those areas which transport grain to other parts of the country, the grain transportation costs should be appropriately raised and the increased costs should be covered by the provinces which receive the grain transfers.

3. It is necessary to readjust the rural economic structure with steady steps and to maintain an adequate area of land sown with grain crops. The aim of readjusting the rural economic structure is to open up new, wider avenues for production, including further developing grain production. Therefore, on no account must we turn the process of readjusting the rural economic structure into a process of reducing the acreage planted with grain crops. Maintaining the area of land sown with grain crops at the level of about 1.7 billion mu is the material foundation necessary for attaining the strategic objectives of grain production.

4. It is necessary to improve the service system and to provide services in various fields. While grain production is becoming more and more specialized and commercialized, it is more and more necessary to institute and improve socialized rural service systems including consultancy services in information for decision-making, supplying fund credits and fine seeds, chemical fertilizers, farm chemicals, and other means of production needed prior to production; the prevention of plant diseases, elimination of pests, the passing on of advanced technologies, and the servicing of farm machines and irrigation works in the course of the production; and the purchase, transportation for sale, storage, and processing of products after production. The various services provided to grain growers, in particular, households specializing in grain production, will significantly raise the socialization, productivity, and economic results of grain production. Therefore, it is also necessary to develop the rural cooperative economy with service at the center and to set up a multisector, multitier, and multiform socialized rural service network with the cooperative system as the main body.

IV. Invigorating the Circulation of Grain Is an Important Link in Achieving Steady Growth in Grain Production

Smooth market circulation is the central link of a thriving commodity economy.

Beginning in the mid-1950's, China adopted a system of state monopoly for purchasing and marketing with regard to the circulation of grain. In the past when grain supply fell short of demand, this purchasing-marketing system played a positive role in ensuring the supply of city residents' grain ration and grain for industrial and defense uses and maintaining social order. However, the practice of monopoly purchases in reality cut the ties between grain production and market circulation, inevitably resulting in dislocation between production and the market demand. In the past when grain supply fell short of demand, contradictions in the circulation sector were covered for the short term. Now when grain production has been further developed and new changes have taken place in the supply and demand relationship, the contradiction of sluggish circulation has revealed itself. With the quantity of grain already in hand, which can never be considered large, we are confronted with a series of difficult problems in such areas as storage and transportation. To put it briefly, the system of grain purchasing and marketing, which was formed in China in the 1950's and assumed the strong color of a supply system, can no longer meet the needs of developing commodity grain production. Therefore, reforming the grain purchasing and marketing system and invigorating the circulation of grain have become key links in accelerating the continued growth in grain production.

In 1985, the CPC Central Committee and the State Council decided to abolish mandatory planning on grain production and the system of unified state grain purchases in favor of a practice of purchasing grain through contracts and stipulated the grain varieties and the quotas of grain purchased by the state and that the remaining grain can be traded freely on the market. This was a major reform in regard to the grain purchasing and marketing system. However, continued efforts are still required to improve the system so that the circulation of grain can ultimately move along the track of the law of value.

First, it is necessary to perfect the system of purchasing grain through contracts. Integrating the system of purchasing grain through contracts and the practice of purchasing grain from the market constitutes a new form whereby the state directs and regulates the production of commodity grain in a planned way. At present the system of purchasing grain through contracts should be perfected in the following ways: It is necessary to respect the peasants' aspirations, to adhere to the principle of voluntary participation and consultation, and to avoid the practice of state purchases according to contracts being turned into "unified state purchases without the system of unified state purchases" and it is also necessary to set necessary limits on the quantity and variety of grain purchased by the state through contracts and on the number of farmers involved in the contracts and to do everything possible to avoid egalitarian apportioning. Once a grain purchasing contract is signed, the parties involved in the contract should fulfill it strictly but when hit by exceptionally serious natural disasters, the quotas prescribed in the contract can be reduced or cancelled all together after taking into consideration the circumstances. This will constantly help perfect the system of purchasing grain through contracts.

Second, it is necessary to straighten out the purchase price of grain. There are many defects in our current grain price system: 1) The state purchases grain and sideline products at prices higher than their selling prices; 2) There are no seasonal or regional price differences and prices are set regardless of product quality; 3) The price difference between grain and industrial crops are irrational, with grain prices a bit too low; and 4) The grain price control system is too rigid. The current prices of grain reflect neither their value nor the relationship between their supply and demand, still less embody the economic results of grain-handling departments. Therefore, steadily straightening out the purchasing and marketing prices of grain has become a problem which has to be solved sooner or later. It can be said that the day when the prices of grain are straightened out is when the circulation of grain will be completely smoothed out. As far as the purchasing prices of grain are concerned, the system of integrating the purchase of grain at protective prices through contracts and from the market is appropriate now. With regard to the selling price of grain, to avoid great social upheavals, it is entirely necessary to keep the current prices of grain and edible oils stable and unchanged. However, they will be straightened out ultimately by abolishing the practice of the state purchasing grain and sideline products at prices higher than their selling prices in favor of a practice of replacing "covert state subsidies" with "overt ones." Considering the consumers' capacity to withstand strains and that conditions are not completely ripe now, we have to wait for an opportunity. In the future, measured steps can be taken in this regard. For example, first, we can decontrol the prices of edible oils which have a limited impact on the livelihood of city dwellers and give them subsidies according to the number of people so that the edible oil rationing system can give way to a practice of letting edible oils be bought and sold on the market without restrictions; then, we can loosen controls over the prices of the finished grain products and the prices of grain consumed by the catering industry by stages and in groups; and finally, we can lift all restrictions on the selling prices of the urban population's grain ration. This practice of turning a "big earthquake" into several lesser "tremors" will help smoothly complete the reform of the grain marketing price system when social stability is ensured.

Third, it is necessary to strike a balance between different regions on the basis of a grain contract system. We must avoid unnecessary mass grain transfers or shipments and repeating the past practice of demanding all regions become self-sufficient in grain regardless of their objective conditions. Achieving a balance between different regions on the basis of a grain contract system is a good method as one may well say. Under the so-called grain contract system, the central authorities contract out the targets for grain purchases, marketing, and transfers to the provinces, municipalities, and autonomous regions separately according to their abilities to transport grain to other parts of the country or to support themselves in grain and their needs to ship in grain from other parts of the country. The contracts will remain unchanged for several years. The central authorities will only take care of matters concerning grain transfers as prescribed in the contracts and grain transfers outside the contracts will be left to be handled independently by the provinces, municipalities, and autonomous regions concerned, each assuming their own responsibilities. This practice will help the state tighten macroeconomic control over grain and invigorate the microeconomy and will also help boost the enthusiasm of the various provinces, municipalities, and autonomous regions for developing grain production.

Fourth, it is necessary to vigorously expand international markets and to develop grain trade with other countries. With the continued development of China's production of commodity grain, apart from meeting the ever growing needs of the domestic market, it will be inevitable for us to expand relations with the international grain market. True, as a big country with a huge population and little arable land, it is impossible for

China to become a big grain-exporting country, but it is necessary and possible for China to conduct normal grain trade with other countries, to improve the economic results of its grain production, and to enhance its ability to earn foreign exchange through grain exports. Therefore, it is necessary to readjust the structure of crop cultivation (such as, developing the production of soybeans in the northeast) in light of the grain demand on the international market and at the same time, it is also necessary to set up and develop a group of refined grain processing and food processing industries specializing in producing export goods.

V. Appropriately Expanding Consumption is the Motive Force for Accelerating the Development of Grain Production

Production and consumption form a unity of opposites. They are two equally important and necessary links in the process of social reproduction. The demand for grain consumption plays a role in accelerating and conditioning the development of grain production. Therefore, we must adopt a correct policy on consumption. For quite some time in the past, we have practiced a policy of restraining consumption and encouraging people to economize on food and clothing, because the supply of grain fell short of the demand in China. Today when new changes have taken place in the relationship between grain supply and demand, the policy of restraining consumption should be replaced with the practice of appropriately encouraging consumption. The current grain rationing system practiced in China among city dwellers is the measure necessary for implementing the system of planned supply. In the situation in which there has been a turn for the better in China's grain supply and demand in the present stage, the grain rationing system practiced in cities and towns which has now become unnecessary cannot be abolished yet because the prices of grain are still to be straightened out. Today the essential significance of the grain rationing system lies exclusively in the right to enjoy price subsidies in buying government-priced grain within the limits allowed by the system. In the future with the marketing prices of grain straightened out, the grain rationing system will surely become a thing of the past and the situation in which grain consumption was considerably restricted by the grain rationing system under which people buy their grain ration with rice coupons will certainly change.

The area where the growth of grain consumption is highly elastic is the transformation of grain into value-added products, namely, processing grain into fodder and then transforming fodder into animal by-products, such as meat, eggs, milk, and fish so as to improve the people's diet. However, we must soberly realize that China's transformation of grain into meat production must be appropriate, because it is handicapped by two conditions, the level of grain production and the level of the people's consumption. In improving the people's diet, we must stress its scientific nature and following the principle of being conducive to the growth of the human body, to keeping fit and energetic, and to maintaining a long life and we have to increase the proportion of animal by-products in the people's diet appropriately rather than follow and apply the Western diet indiscriminately.

/12858
CSO: 4007/391

LIAOWANG ANALYZES GRAIN PRODUCTION SITUATION

HK300941 Beijing LIAOWANG in Chinese No 15, 14 Apr 86 pp 9-10

[Article by Liu Yunqian [0491 0336 3383]: "Analysis on the Current Situation in Grain Production"]

[Text] The CPC Central Committee and the State Council have issued a series of important directives on the grain issue since last year's national conference of party delegates, demanding that party committees and governments at all levels pay more attention to the grain issue and take good care of grain production and circulation. The issuance of these directives does not mean that the country is facing serious problems regarding grain production but that we must get a clear understanding of the current situation in grain production, pay due attention to the existing problems regarding grain production and circulation, and take feasible measures to deal with them. This is because grain is the basis of everything--it is not only the people's stable food but also the basis for developing animal husbandry, industrial crop production, and the food processing industry. If China fails to develop its grain production and circulation steadily, all the efforts that we have just mentioned above will be affected, and therefore the improvement of the people's living standards and the development of the national economy will also be affected.

Our Country Is Still Lagging Behind in Grain Production

As the output-related system of contracted responsibility on the household basis and a series of new policies have been implemented since the 3d Plenary Session of the 11th CPC Central Committee, a fundamental turn for the better in the situation of grain production was effected between 1983 and 1984 and we have reaped bumper grain harvests for 6 years in a row. Last year, the grain output decreased remarkably. But, as the peasants have become richer now and the state has a relatively ample stock of grain, we can still manage to ensure a normal supply of grain, and thus basically meet the more than 1 billion Chinese people's needs for food and clothing. Our great achievement in this respect is obvious to everyone at home and abroad. However, we must also be aware that our country is still lagging behind in grain production, and unrealistic optimism is not justifiable.

In the first place, China's per-capita distribution of grain is rather low. The per-capita distribution of grain is a comprehensive criterion to evaluate the performance of a country or a region in grain production and circulation. In 1984, China's per-capita distribution of grain was 394 kg, close to 400 kg--the target set in the original plan that we expect to fulfill by the turn of the century when China's population will reach 1.2 billion. However, we must make an objective analysis of this targeted 400 kg per-capita distribution of grain. First, the 400 kg of grain is unprocessed food grain, generally known as unhusked grain. This amount of grain can yield only 322 kg of processed grain that is immediately available for consumption. So the actual per-capita distribution of grain will be 72 kg less than the origianl figure. Second, there is a serious imbalance between different parts of the country in regard to grain output. With the three municipalities and Xizang region excluded, 11 provinces of China enjoyed a per-capita distribution of grain higher than the country's average per-capita distribution of grain. Jilin Province, with its per-capita distribution of grain attaining 716 kg, topped all other provinces and regions in the country. Meanwhile, the per-capita distributions of grain in 15 provinces and regions were lower than the country's average per-capita distribution of grain. Qinghai Province's per-capita distribution of grain was 251 kg, the lowest in the country. Also, the per-capita distribution of grain in Nei Monggol Autonomous Region, Guizhou Province, Yunnan Province, and Gansu Province was under 300 kg. This is the case in just the provinces and regions--the disparity between prefectures and between counties is even more remarkable. Third, as compared with the best years in history, we have not made any great progress, and the per-capita distribution of grain has even declined in certain areas. We had 2 good years and 1 lean year during the period from 1983 to 1985, and the average per-capita distribution of grain for the period was 375 kg. We also had 2 good years and 1 lean year during the period from 1955 to 1957, and the average per-capita distribution of grain for this period was 303 kg. In comparing these two cases, we find that the average per-capita distribution of grain rose by only 72 kg in 25 years, at a rate of less than 3 kg a year. Fourth, our average per-capita distribution of grain is lower than the world average, which currently stands at 429 kg. There is a still wider gap between China and those countries with developed agriculture--Canada's average per-capita distribution of grain is 1,783 kg, that of the United States is 1,565 kg, that of Australia is 1,873 kg, that of France is 1,088 kg, and that of the Soviet Union is 679 kg. Thus the above comparison and analysis show that with the per-capita distribution of grain standing at 400 kg we can merely ensure that our people have just enough to eat.

In light of the plan governing future grain production and population growth, our country's per-capita distribution of grain will be raised in accordance with the following program: The Seventh 5-Year Plan sets the total grain output quota between 25 million and 450 million tons, in other words, the grain output is to increase by 10 to 15 million tons a year on average. This is a new milestone in grain production which can only be reached by bringing science into play, increasing investment, raising per-unit-area yield, and taking appropriate measures to stabilize the area of farmland. It is estimated that China's population totaled 1,046 million by the end of 1985. Supposing the rate of natural population growth is 12.9 per thousand, the population will increase to 1,115 million by late 1990, and the average per-capita distribution of grain will be between 381 and 404 kg. By the turn of the century, the population will increase to 1.27 billion if it grows at the natural growth rate predicted by the "Seventh 5-Year Plan and the average per-capita distribution of grain will then be 414 kg. In other words, for a rather long period, the per-capita distribution of grain is not likely to increase substantially from the current level which is close to 400 kg.

Next, the commodity rate of grain is low. In the commodity economy, the commodity rate of grain is another important index indicating the condition of grain production. Just as Marx pointed out: "The agricultural labor productivity that exceeds the laborer's personal need is the basis of all societies." And the key to raising agricultural labor productivity lies in the peasants' ability to supply commodity grain. Due to the long-term influence of the small-scale peasant economy, the grain production in our country is basically self-sufficient. In practicing the unified procurement and marketing system after the founding of the PRC, we were allocating and distributing grain in the way of a product economy which hampered the development of production of commodity grain. Therefore, our commodity rate of grain was only 19.7 percent by 1978. The production of commodity grain has been raised considerably since the 3d Plenary Session of the 11th CPC Central Committee. In the 1984 harvest year, the grain procured by all the state grain departments at low and negotiated prices accounted for 31.7 percent of the gross output of grain (if the grain marketed through many other channels was included, the commodity rate would be about 30.4 percent). Although the commodity rate was raised, there was a serious imbalance between different provinces--the commodity rate of grain reached 49.7 percent in Jilin Province, while it amounted to only 11.9 percent in Guizhou Province.

In the wake of the development of the commodity economy in rural areas, the commodity rate of grain will continue to rise in the future. But it will not rise rapidly. For a relatively long period to come, the commodity rate of grain may remain at about 28 percent, the average recorded in the past 3 years.

The low average per-capita distribution and commodity rate of grain in China are determined by our basic national condition of a large population and limited farmland. In 1984, China's per-capita grain growing area was only 1.6 mw. And our average per-capita distribution of grain was still lower than the world's average although our per-mu grain yield attained 255 kg, 90 kg higher than the world's per-mu grain yield which currently stands at 165 kg. Following the growth in population, our average per-capita grain growing area will be reduced to a little more than 1 mu by the turn of the century even if the total grain growing area remains constant.

Several Problems that Need Close Attention

In order to ensure the steady development of grain production and circulation, it is necessary to correctly view and handle the following four problems.

1. It is necessary to stabilize the grain growing area. Land is the most fundamental means of production for grain production. To be sure, the noticeable decrease in grain output last year was partly due to natural disasters and to some areas overlooking grain production. But it is a fact that the grain sowing area was reduced by 66 million mu or more as compared with the

previous year due to the readjustment of the growing structure of corps. This was another important cause for the decrease in grain output. Since the per-unit-area grain yield will not be raised substantially in the near future, it is particularly necessary to maintain a suitable grain growing area. From the microeconomic point of view, the ratio between the growing area of grain and that of industrial crops must be readjusted. But this should be done in a discriminating way and in light of local conditions. From the macroeconomic point of view, the grain growing area should not be reduced by appropriately raised. Moreover, if the grain growing area has been reduced, we must take action to raise the multiple cropping index and the per-unit-area grain yield so as to ensure a steady growth in the gross output of grain. In other words, we must readjust the crop planting distribution and maintain a suitable grain growing area in accordance with the principle of overall stability and minor readjustment. As our country has only a limited reserve of farmland, the current practice of arbitrarily occupying and misusing farmland, if continued, will undermine national construction, seriously affect the people's livelihood, and entail untold troubles to the coming generations. Therefore, we must pay close attention to this problem.

2. It is necessary to protect and enhance the peasants' initiative in growing grain. The old practice of urging the peasants to grow grain and sell crops to the state by convening telephone meetings. An eye on the progress in grain production and procurement does not work any longer. The key lies in regulating the relationship between the state and the peasants in terms of economic interests. The situation in grain production has been improved in the past few years. This is because we, on the one hand, practiced the responsibility system and, on the other, raised the grain procurement price. In order to give full play to the peasants' initiative in growing grain, the state has readjusted and reduced the 1986 quota for purchase of grain by contracts and raised the proportion of grain purchased at negotiated prices, which will help to increase the grain growers' income. At the same time, the state has also adopted such measures as "grain production being linked with supply of chemical fertilizer," "industry subsidizing agriculture," priority loans, and so on. Nowadays and in the future, there will be more and more ways to get rich in rural areas and, relatively speaking, grain growers' initiative will be a long-term task that needs constant attention.

3. It is necessary to encourage localities to grow and export grain. The old practices, such as administrative means and mandatory measures, to encourage localities to produce and export more grain, do not work any longer. Instead, the problem must be solved through regulation of economic interests. We must make grain export profitable to grain producing areas. Only thus can we give full play to the grain producing areas' initiative in growing grain and encourage the areas short of grain to vigorously develop grain production so that they can reduce grain imports. The key to regulating the economic interests of the grain lies in the export prices of grain. At present, as grain is exported at a price which equals the sum of the unified procurement price and the fixed export operational cost, the issue of grain exports incurring losses can hardly be solved. For this reason, the grain producing areas do not want to export grain, while the areas suffering grain shortages always want to increase grain imports since imported grain is cheap. As the contradiction has become more and more acute, this issue has turned out to be a very pressing and crucial one.

Once this issue is solved, other issues can be readily solved. The solution is to appropriately lift the restrictions on the grain export price by establishing lateral economic ties. As this measure merely involves the change of domestic price relations, it will not affect the fluctuation of the grain purchase and marketing prices [as published] but rather help to boost grain production and circulation.

4. It is necessary to control and keep down the sale of grain. The purchase and marketing of grain are the two aspects of the circulation of grain. In order to ensure a balance between the gross demand and gross supply of commodity grain, the purchase and marketing of commodity grain must keep in line with each other. As the output has increased in the past few years, we have moderately increased the sale of grain so as to reduce the surplus in the state grain depots. Meanwhile, however, we have also recklessly overconsumed grain somewhat, due to negligence. As a result, the sales volume of grain has increased rapildy. Such being the case, we must make up our mind to keep down the sale of grain that has been jacked up by the slight increase in grain output and to restore and carry forward the fine tradition of consuming grain in a planned and frugal way. On the other hand, the policy of "two transformations"--"transformation of grain into feed and food products"--that was put forth in the recent 2 years should be implemented discriminately in different parts of our country in accordance with their grain producing capacity. Those areas which abound in grain can process their grain locally, while those areas short of grain are not to follow suit.

By and large, the grain issue is a major economic issue as well as major political one which we can never treat lightly.

/12232
CSO: 4007/395

AGRICULTURE MINISTER URGES 'PRACTICAL WAYS' TO KILL RATS

HK060811 Beijing CHINA DAILY in English 6 May 86 p 1

[By staff reporter Nie Lisheng]

[Text] This year could be another Year of the Rat for farmers who face the prospect of losing 15 million tons of grain to the insatiable rodent.

According to a forecast by the National Farmland Rat Monitoring Taskforce, field rodents are expected to plague 23 million hectares of cultivated land around the country. Guizhou, Sichuan, Shaanxi, Shanxi, Inner Mongolia, Xinjiang and provinces along the middle and lower reaches of the Yangtze River are expected to be particularly badly hit.

This will be the fifth year in succession that infestation has damaged more than 20 million hectares. Last year rats attacked a record 24.6 million hectares, 24.4 percent of the country's total arable land.

In a speech on Sunday at a national symposium on agricultural rodent infestation, Minister of Agriculture He Kang called on rat experts and researchers to work out effective practical ways to check the enormous growth of the rural rat population in recent years.

Since farmers adopted more intensive farming methods to make the most of their farmland, rats have been "offered" even more favourable conditions, as crops provide both food and shelter.

As a natural result, the minister said, there had been an explosion in the rat population in the 1980s. The population density had reached 10 to 20 catches per 100 traps in 24 hours, compared to five in the 1960s and eight in the 1970s.

He said the rat population had grown so quickly that the problem was now urgent. During the sowing season, for instance, they had been found to be capable of devouring an average of 10 to 15 percent of sown rice seeds, or even 50 to 60 percent in the worst affected fields.

In her report, Zhao Guizhi, China's leading rat expert from the National Plant Protection Station, said China was working towards a national plan to fight farmland rat infestation. A nationwide network of 10 rat monitoring and forecasting stations will be completed this year to assess the relationship between the number of rats and their environments, especially where rice, wheat and corn crops are grown.

A large-scale trial was conducted last year over 4.66 million hectares in 22 provinces to test slow-acting raticides like diphacione sodium salt with the view of wider use around the country.

The chemical trial has proved to be more than 90 percent effective in controlling rodents and such poisons are expected to gradually replace "quick" rat poisons like zinc phosphide, which can also harm other creatures and pollute the environment.

To date, Zhao said, China had been spending several million yuan a year on rat poison, mostly "quick" raticides. But they have been used on only one-third of all rodent infested areas.

Last year, she added, Chinese farmers treated 12.3 million rat-plagued hectares, killing 605 million rats and thus saving an estimated 5 million tons of grain.

/12913
CSO: 4020/313

METHODS EXPLORED TO MECHANIZE ANIMAL HUSBANDRY

Beijing NONGYE GONGCHENG [AGRICULTURAL ENGINEERING] in Chinese No 2, 5 Apr 86 pp 2-3

[Article by Wang Yinpo [3769 5593 0980]: "Hasten Improvement of Production Tools for Vigorous Development of Animal Husbandry"]

[Text] Output value from animal husbandry has risen as a percentage of the gross output value of agriculture thanks to the strengthening of animal husbandry, which has always been a fairly weak link, every province, municipality and autonomous region having readjusted the structure of rural industry. Overall, the situation is very good in animal husbandry production, and achievements scored during the Sixth 5-Year Plan have been inspiring.

Despite the very fine situation in animal husbandry production, two large problems requiring solution remain as follows: 1. Though output of livestock products has increased with each passing year, a gap between output and real needs still exists. In other words, the gap is still very great. We must strive to maintain a balance between society's total demand for livestock products and the total supply. If we fail to do so, the difference between supply and demand will create proportional imbalances in the national economy that will adversely affect the four modernizations. 2. Though some households that raise livestock (including herdsmen) have had earnings of 1,000 yuan and 10,000 yuan in recent years, earnings of the majority have been lower than those engaged in business, doing labor, or involved in tertiary industries. To a certain extent, this has had a bad effect on the enthusiasm for animal husbandry of some.

The afore-stated two problems are, in a nutshell, matters of what policies, steps, actions, and methods should be taken to further stimulate the enthusiasm of those who deal in and raise livestock, thereby raising their labor productivity rates and their earnings somewhat, and thereby further speeding up animal husbandry production, increasing somewhat the quantity and variety of livestock products in order to meet increasing demand for food of animal origin as the people's standard of living rises year by year, and to meet the needs of the four modernizations and of exports. Certainly, when assessing the situation in animal husbandry, one cannot overlook its very brittle foundation and the need for constantly strengthening it step by step.

Practical experience in production both inside and outside China tells us that the solution to problems currently existing in animal husbandry production, bringing about specialization in animal husbandry production, development of commodity production, and modernization of animal husbandry cannot be achieved without improvement in production conditions and production tools. If we continue to use traditional, clumsy, and simple hand tools, development of specialization, commodity production, and modernization of animal husbandry production simply will be impossible of realization. One must realize that improvement of the tools of production is crucial. Did not improvements in production tools spur development of human society, too? That chicken is cheaper than any other meat in some countries is attributable largely to the mechanization of the production process. A single worker can raise tens of thousands or even 200,000 chickens, and as the labor productivity rate rises, the commodity rate rises with it, and the chicken raiser also becomes rich. The same is true in raising hogs, sheep, and cattle. In 1984, Hungary produced 157 kgs of meat per capita. In 1985, China produced a gross output of 32.85 billion jin of pork, beef, mutton and goat, or slightly more than 15 kgs per capita. This gap also represents a gap in production tools. In Hungary, livestock production from feeding to food processing is 80 percent mechanized, while the degree of mechanization in China is much lower. Because of the backward production tools used, it is impossible for any given household (or person) to raise a very large number of animals. As a result the number of animals above and beyond those supplied for one's own consumption that are available as commodities is not great. This limits the extent of increase in the labor productivity rate and the commodity rate.

In 1986, farming areas, half farming and half pastoral areas, and pastoral areas will continue to carry out the second step in improvements, and the structure of industry will also have to continue to be readjusted. Under guidance of a policy of "positively no relaxation in grain production while actively developing economic diversification," forestry, animal husbandry, the fishing industry, processing industries, the construction industry, township and town enterprises, and all the service trades will be bound to expand further and develop further. This is an inevitable trend in the all-around flourishing of China's national economy.

Once the industrial structure has been readjusted, every industry will confront the common problem of the unsuitability of production tools and the fettering of increase in productivity. Animal husbandry will positively not be an exception. Let me now take up the issue of accelerating improvements of production tools to invigorate animal husbandry and make several recommendations.

1. The Crux in Speeding Up To Change the Present State of Affairs Lies in Leadership

China's history in the use of machinery in animal husbandry has not been short by any means. During the Russo-Japanese War in 1904, hay mowers were brought into the area west of the Lesser Xing'an Range. Before the founding of the People's Republic, Nei Monggol, Heilongjiang, and parts of Xinjiang were already using small numbers of livestock machines. During the 36 years since the founding of New China, the speed of increase in livestock machinery has quickened and the kinds of machines are also somewhat more numerous. Changes in production tools have given a certain amount of impetus to animal husbandry in evidence of their superiority. Nevertheless, there remains a great gap today between the numbers and kinds of livestock machines in use and actual needs, and the speed of development of livestock machinery has also been fairly slow. This slowness directly affects development of animal husbandry and affects the national economy, people's livelihood, and the four modernizations. This slowness cannot be allowed to continue; a change must be made quickly. Concerted efforts must be made from the central government to local jurisdictions and from top to bottom; each and every level must thoroughly tackle the problem of raising the degree of mechanization of animal husbandry. We firmly believe that under the leadership of the CPC Central Committee and party and government institutions at all levels, if scientific research, education, management, manufacturing, maintenance and repair, and supply systems concerned with mechanization of animal husbandry will make a scientific division of labor and closely coordinate with each other, results can certainly be achieved. It is suggested that state organizations that play a key role such as the Ministry of Agriculture, Animal Husbandry, and Fishery and the Ministry of Machine-Building Industry tackle this problem again and tackle it thoroughly. This is the common cry of of the majority of comrades on the animal husbandry front and on the animal husbandry mechanization front throughout the country.

2. The Problem of Capital

Why is it that undertakings require capital, yet disbursement of all funds that are a part of the national budget is difficult? The methods other sectors have used may be studied to get development funds for the mechanization of animal husbandry as follows: 1. Projects of a national character or certain key projects may be included in state plan and funds allotted by the project as actual needs for development dictate. 2. Projects of a local nature or that do not have pertinence to the overall situation may be made a part of provincial, city and region plans, funds being allotted by the project. 3. Use of industry to aid agriculture, use of sideline occupations to foster agriculture, use of industrial sideline occupations to support farming, and use of cash crops to sustain grain crops has been a fundamental policy pursued in China for a long time. These methods may be employed to cause the livestock economy to enter a benign cycle orbit as quickly as possible. 4. Induce those who deal in livestock and those who raise livestock to put up some funds to buy more of the means of production and improve production conditions.

3. Scope and Steps To Be Taken in Mechanization of Animal Husbandry

The scope of mechanization of the process of animal husbandry production is not limited to any given segment of livestock raising but applies to the whole process. It is a totality that embraces the development and building of grasslands (forage grass and fodder), planting, care, harvesting, processing of forage grass and fodder, livestock raising, prevention and control of epidemic diseases, sorting, processing, storing, and transporting of livestock products to the final sale of products. In the course of implementation, a gradual process of transition from hand tools to semi-mechanization,

mechanization, and a high degree of mechanization may be followed. A prominent problem in the whole process of mechanization is the quality of machinery, its suitability, and a rational matching of components. The lessons of history must be learned.

4. Form of Organization of Animal Husbandry Mechanization

In view of the status of animal husbandry production at the present stage and the state of the economy and technology, methods of organizing the mechanization of animal husbandry may be diverse. No single form should be insisted upon. Any form of organization that benefits animal husbandry production may be considered for use. Further decisions may be made as events proceed after summarizing the lessons of experience. Consideration may be given at the present time to the following several forms of organization.

1. Animal husbandry machinery service stations (service companies) for enterprises of a state-owned nature. Such stations (or companies) may provide all kinds of services or they may provide only a single kind of service. Their method of operation may either serve livestock raisers directly or rental methods may be adopted.

2. Joint operations in a collective system of ownership. This form of operation may be joint between the state and mass collectives, state rental to mass collectives, or between the masses and the masses. Funds may be invested in shares or a price may be set for machines and implements that are invested in, with profits divided on the basis of the number of shares. The scope of operations may be determined on the basis of the number of machines and implements.

3. Individual operations. At a certain period of time, the following may be advocated: use of machines and implements by individual operators who provide service to others and who may concurrently be engaged in animal husbandry production themselves. Not only can they thus satisfy the needs of their own operations, but they may also provide service to others to increase their income.

4. Family operated pasturelands. In principle, under this method a family becomes an independent livestock raising unit. Individuals should be encouraged to buy all the machines and equipment needed, the state providing assistance in the form of technical guidance. Surplus machinery and equipment from family pasturelands may be used to provide service to other livestock raising households.

9432
CSO: 4007/384

TECHNOLOGY IMPORTS RESULT IN FARM MACHINERY IMPROVEMENTS

HK300447 Beijing CHINA DAILY in English 30 Apr 86 p 2

[Text] Imported technology has changed the face of the country's farm machinery manufacturing, the newspaper CHINA FARM MACHINERY JOURNAL reported.

The industry negotiated 45 deals bringing in $73 million of new equipment over the past five years.

About 65 percent of major factories in the industry are turning out new products at modern technical levels.

The journal noted the example of Jiamusi Combine Factory which is now manufacturing giant combines with the assistance of imported technology. In the past, the technical level of Chinese combines lagged up to 30 years behind those manufactured in advanced countries.

In the past five years, the industry has imported 18 sets of equipment to produce components for internal combustion engines.

A factory in the city of Changsha, Hunan Province, is mass producing a new piston ring after importing a chromium-plating technique from Britain. The ring increases the performance and life of engines.

Wuxi Diesel Engine Factory is currently manufacturing crank shafts for export machines after purchasing an iron casting technique from Britain. In the past, nearly 70 percent of its crank shafts for its 8300 diesel engine were below standard.

Technological imports have also started earning hard currency, the journal said. In the past two years, Jiamusi and Kaifeng combine factories have exported $2.4 million worth of combines to the United States.

The journal predicted that farm machine sales in two-thirds of the country this year would equal last year's level, while a drop in sales is likely in the other third.

The market faced stiff competition this year because of oversupply, the journal said.

/12913
CSO: 4020/313

BRIEFS

VETERINARY MEDICINE DEVELOPS--At present, 26 provinces, regions, and municipalities have set up organizations for veterinary medicine administration and inspection, with a contingent of more than 700 people. Last year, the State Council promulgated "Regulations on Epidemic Prevention for Domestic Animals"; Gansu and Shanxi provinces have allocated 550,000 yuan and 1,650,000 yuan respectively to strengthen epidemic prevention work. Henan has trained more than 3,800 people for meat inspection; 58 percent and 94 percent of the agricultural markets in Zhejiang and Shandong provinces have developed quarantine work for animals and other products. Based on incomplete statistics, Nei Monggol has quarantined more than 4,900,000 head of livestock and various types of meat. [Excerpts] [Beijing NONGMIN RIBAO in Chinese 1 Apr 86 p 2] /7051

CROP FERTILIZATION WITH PEAT--Beijing, 3 May (XINHUA)--The use of peat as fertilizer on 550,000 hectares of farmland produced 55 million yuan worth of extra crops throughout China in the past few years, a newspaper here reported. The "Economic Information" paper quoted experts as saying that such substances contained humic acid, which improved the soil and promoted crop growth. Humic acid materials are being applied to 24 crops such as rice, wheat, corn, vegetables and flowers in China. The experts said that application of the materials may help increase the output of rice by four to eight percent, and that of wheat, 6.8 to 10 percent. [Text] [Beijing XINHUA in English 1247 GMT 3 May 86 OW] /12913

NEW TECHNIQUES INVENTED--Hangzhou, 6 May (XINHUA)--Government science officials are rushing to spread word of new techniques for doubling protein and other extractions from soybeans and peanuts, a report in PEOPLE'S DAILY said today. The new techniques were invented by professors at the Hangzhou Institute of Commerce. They make use of 85 percent of the contents of soybeans and peanuts compared with the 40 percent possible with conventional techniques. The techniques, which involve new forms of fat removal, will enable processors to extract 10 kilograms of edible oil and 75 kilograms of dried bean curd from 100 kilograms of soybeans. According to the report in the communist party newspaper, the scientists also have learned how to make a substance that is 60 percent protein from peanut extractions. They call it "peanut protein meat." [Text] [Beijing XINHUA in English 1348 GMT 6 May 86 OW] /12913

CSO: 4020/313

GOVERNOR PROMISES TO RAISE PEASANTS' INCOME

OW281134 Beijing XINHUA in English 0647 GMT 28 Apr 86

[Text] Hefei, 28 April (XINHUA)--Governor of east China's Anhui Province promised to raise the local peasants' income by 40 percent to 520 yuan by 1990.

He also expected to see in the next 5 years a 26 percent increase in the income of urban workers which averaged 1,213 yuan a year at present.

This was only a moderate growth compared with the increase over the last 5 years, said Governor Wang Yuzhao who outlined his provincial development plan for the Seventh 5-Year Plan period from 1986 to 1990 at a recent provincial meeting.

The average income of peasants in Anhui Province was 369 yuan last year, doubling the figure 5 years ago, according to Governor Wang Yuzhao.

As for the income of urban workers and other employees, he said that the total payroll has increased 64.2 percent and the average wage of each workers has increased 41.2 percent in the past 5 years.

He said that the province allocated 159 million yuan to aid the nearly 500,000 poor families in rural areas over the past 5 years and one-third of them can now support themselves.

The province constructed urban residences with a floor space of 12.2 million square meters, averaging 1.2 square meters for each inhabitant, he said.

Anhui also gave jobs to 700,000 more young people over the past 5 years.

Total bank savings reached 3.8 billion yuan at the end of last year, 4.4 times that 5 years ago, he said.

/12232
CSO: 4020/306

BRIEFS

AQUATIC EXPORTS--In the first quarter of the year, the Fujian Aquatic Products Import and Export Corporation earned $6,700,000 U.S. in foreign exchange from exports of fresh aquatic products, exceeding the national annual export task by 28 percent. In the first quarter, the foreign sales volume of fresh aquatic products rose to 89.7 percent from 63 percent in the same period last year. [Summary] [Fuzhou FUJIAN RIBAO in Chinese 10 Apr 86 p 1]

CSO: 4007/401

SCIENTIST RECOMMENDS, URGES USE OF METHODS TO FIGHT EROSION

OW021856 Beijing XINHUA in English 1834 GMT 2 May 86

[Text] Lanzhou, 2 May (XINHUA)--China will probably be able to convert 24,000 sq km of desert into fields by the turn of the century if resources are used scientifically and achievements in desertification control are applied thoroughly, a noted scientist said here today.

But, said Zhu Zhenda, director of a desert research institute in this Gansu provincial capital, if the proper measures are neglected, some 80,000 sq km of fertile land will become deserts in the period.

His remark was based on a survey of the development of land desertification, the first of its kind, carried out in China from 1983.

China has 334,000 sq km of deserts, mainly in the northern part. Through analysing aerial photographs taken at different times, scientists learned that the deserts expands about 1,000 sq km annually.

Zhu said China should propagate methods, such as anchoring sand with grass and planting tree shelterbelts, which have already proved effective and inexpensive.

"The task is quite arduous," he said.

Since 1978 China has launched a massive grass- and tree-planting drive; a 3,000 km shelterbelt across northeast, north and northwest China, has taken shape.

China has brought 10 percent of eroded land under control and improved another 12 percent since liberation in 1949.

/12232
CSO: 4020/306

MEETING FOCUSES ON RURAL COOPERATIVE ECONOMY

HK260601 Guangzhou Guangdong Provincial Service in Mandarin 0400 GMT 26 Apr 86

[Text] A meeting on perfecting the rural cooperative economy, convened by the Rural Work Department of the Guangdong Provincial CPC Committee, concluded in Guangzhou yesterday. The meeting held that to set up local cooperative economic organizations is the demand of the central authorities. In recent years, while establishing the contract responsibility system with payment linked to output, based on household operations, some parts of Guangdong have continually worked to perfect local cooperative economic organizations. With the original natural villages, production teams, and production brigades as the units, they have respectively set up economic cooperatives and joint economic cooperatives, achieving marked success.

The meeting pointed out that the rural contract responsibility system linking payment to output is cooperative economy in nature, which practices dual operations through both unified and individual household operational management. It thus constitutes a local cooperative economic organization. Far from weakening household operational management, local cooperative economic organizations can stimulate and bring into play the potentials of household operations by providing service before, during, and after production and solving difficult problems that individual households are unable to solve by themselves.

The meeting demanded that, while perfecting the contract responsibility system with payment linked to output, all localities both persevere in household contracts and also make a success of the local cooperative economic organizations.

/12232
CSO: 4007/395

GUANGXI

BRIEFS

HEMP, TEA OUTPUT--Last year, although the Guangxi reclamation area suffered natural disasters, output of sisal hemp and tea increased. The gross output of sisal hemp fibre was 5,248 tons, and the gross output of crude tea was 2,768 tons, a 10.34 percent and 29.34 percent respective increase over 1984. The per mu yield of sisal fibre was 132 kilograms, and the per mu yield of tea was 98 kilograms, a 13.79 percent and 16.66 percent respective increase over 1984. [Text] [Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION] in Chinese No 3, Mar 86 p 45]

CSO: 4007/401

BRIEFS

ARABLE LAND DECREASES--Based on statisitics, about 580,000 mu of land throughout the province is used for non-agricultural purposes, of which 450,000 mu is arable land. From 1957 to 1984, the annual average decrease of arable land was about 110,000 mu; yet within the past 3 years, the annual increase in population was 300,000, the reduction of arable land was 150,000 mu, the equivalent of the arable land in one county. [Excerpts] [Beijing NONGMIN RIBAO in Chinese 17 Apr 86 p 1]

CSO: 4007/399

HEBEI

AGRICULTURE AS FOUNDATION STRESSED AT RURAL WORK CONFERENCE

Paper Assesses Issues, Decisions

SK240549 Shijiazhuang HEBEI RIBAO in Chinese 13 Apr 86 p 1

[Text] The 8-day provincial rural work conference held by the provincial CPC Committee concluded on 11 April. Through full discussions, the conference decided on the several tasks that the rural areas of our province should accomplish emphatically this year: to improve the circulation system and the cooperative service system, and readjust the rural production setup to make it more rational; to enhance the material and technological foundations for agriculture; and to strengthen and improve the rural grassroots work. The participants at the conference were determined to fulfill these tasks in a down-to-earth manner, and stimulate a sustained, stable, and coordinated development in the rural economy of our province.

The participants exchanged the methods for and experiences in implementing the Central Document No 1 of this year, and studied some policy regulations. Responsible comrades of the provincial CPC Committee, Advisory Commission, and government, including Xing Chongzhi, Xie Feng, Li Wenshan, Yang Zejiang, Liu Ronghui, Chen Yujie, Hong Yi, and Zhang Runshen, attended the conference. During the conference, Comrade Yang Zejiang spoke on the province's rural work, Comrade Hong Yi spoke on rural commodity circulation, and Comrade Zhang Runshen spoke on the development of township enterprises. At the conclusion of the conference, Comrade Xing Chongzhi gave a speech entitled "It Is Necessary To Strengthen and Improve the Rural Grassroots Work." Comrades Xie Feng and Li Wenshan also spoke on further fostering the idea of taking agriculture as the foundation and reaping a good harvest this year, and on strengthening rural ideological and political work, and the spiritual civilization, respectively.

One of the important issues studied at the conference was the ways of continuing the second step of the rural reform successfully, improving the circulation system and the cooperative system, and promoting the readjustment of the rural production setup to make it more rational. The conference noted: With the guidance of the Central Document No 1, the rural economy has maintained a good trend of development since the beginning of this year, and the peasants have increasingly enhanced their enthusiasm for increasing the production of grain, oil-bearing crops, melons and vegetables, fruits, and aquatic products. At present, in the field of cropping, we should stabilize the grain growing areas, raise its per-unit yields, readjust its varieties, and ensure a stable growth in the total output. In agriculture, we should maintain a coordinated development. Township enterprises should be regarded as a strategic key point of the rural economy, and all localities should fully develop them by making the best of all favorable factors while not exceeding the "four scopes that should be put under control." Localities where township enterprise development is in the initial stage should all the more develop them, and persistently "turn the four wheels simultaneously."

In order to successfully readjust the production setup, we should guide the peasants to increase their ability for regulating and developing the commodity economy in line with the needs of the state and the demands of markets. At present we should pay attention to the following three tasks: First, we should perfect purchasing contracts; second, we should open up circulation channels; and third, we should grasp serialized service well.

The conference stressed: All localities should further firmly foster the idea of taking agriculture as the foundation, reinforce the material and technological construction for agriculture, and increase the strength for a sustained, stable, and coordinated agricultural development. Over the past few years, agriculture has been developed in a comprehensive manner, and remarkable achievements have been scored thanks to the conscientious implementation of the party's various rural policies, the active promotion of science and technology, and the full development of the efficiency of the farmland improvement projects built over the past many years. However, we should also note the deficiencies and the hidden danger in the agricultural development. At present the per capita amount of grain of our province is lower than the national average, and some peasants still do not have sufficient food and clothing. The acreage of cultivated land declines sharply, and land management is in chaos. Water resources fall seriously short of needs, farmland irrigation works become old and out of repair, and they are damaged faster than they are built. The fertility of cultivated land drops, and its organic substance declines. The grain growing enthusiasm of peasants in some localities is dampened. In view of such a situation, the conference unequivocally urged CPC committees and governments at all levels to reinforce agriculture, which is the foundation, and conscientiously solve the existing problems. It is necessary to increase agricultural input accordingly. Special investment allocated by higher authorities should not be used for other purposes, and efforts should be made to build supplementary works and fulfill the construction tasks. The problem of arbitrary occupation of farmland should be solved earnestly, and there should be organs, regulations, and measures for strict land management. In the meantime, we should study the ways to boost the peasants' enthusiasm for growing grain and developing the cropping industry as a whole, and balance the relation of agriculture to other industries. Scientific research departments should pay attention to the task of increasing the strength of agriculture from the viewpoint of the strategy for agricultural development. All trades and professions should uphold the idea of supporting agriculture, and should never slacken their efforts in it just because the agricultural situation has become better. At present we should try all means to wrest a good wheat harvest this year, and then reap a good harvest in the whole year.

The conference also particularly studied ways to strengthen and improve the rural grassroots work. In addition, we should start from improving service to improve the cooperative system. The cooperative system represents the association and cooperation carried out in line with the needs in commodity production and the desire of the masses, and on the basis that the household output-related contracts and independent operation are safeguarded. Through service, we should perfect the two-layer management structure which combines centralized and decentralized management.

Xie Feng Comments Noted

SK240617 Shijiazhuang Hebei Provincial Service in Mandarin 2300 GMT 12 Apr 86

[Text] At the provincial rural work conference sponsored by the provincial CPC Committee, Xie Feng, deputy secretary of the provincial CPC Committee, stressed in his speech that it is necessary to firmly foster the idea of taking agriculture as the foundation.

Xie Feng said: Since the 3d Plenary Session of the 11th CPC Central Committee, we have upheld the basic guiding ideology of taking agriculture as the foundation, conscientiously reinforced this foundation, and earnestly implemented the principle of never slackening grain production while vigorously developing diverse undertakings. We have carried out a series of reforms in the rural areas and have, therefore, brought about an overall prosperity in the rural economy, reaped good harvests year after year, continuously increased the peasants' income, and enabled the peasants to have sufficient food and clothing in most areas. Our achievements have been tremendous, and the rural situation has been excellent. This is the mainstream. However, we should remain clear-headed to see that our province's foundation--agriculture--is rather weak, and agricultural production is not stable and balanced. Problems and hidden danger still exist, such as, mainly, the acreage of cultivated land declines sharply, water resources fall seriously short of needs, farmland irrigation works become out of repair, and are damaged to a serious extent, grain output is comparatively low, and the problem of supplying adequate food and clothing to the peasants has yet to be totally solved in a few areas.

Xie Feng emphasized: Party and government leaders at all levels should further firmly foster the guiding ideology that agriculture is the foundation of the national economy, and grain is the foundation of this foundation, unswervingly regard it as a long-term strategic principle, conscientiously do a good job in reinforcing the agricultural foundation, and stimulate a sustained, stable, and coordinated development in the rural economy. We should increase agricultural input accordingly. Based on their actual conditions, all localities should properly increase their investment in agriculture, and see to it that funds earmarked for special purposes are not misused. We should resolutely eliminate the situation of arbitrary farmland occupation, and manage farmland strictly. We should step up the management of farmland improvement projects and other existing facilities. All trades and professions should continue to support agriculture, and do a good job in serialized and socialized services. Leading persons at all levels should further study and boost the peasants' enthusiasm for farming, and bring into balance the relations of this to other relevant fields.

Xie Feng stressed: At present, the most pressing task is to strengthen wheatfield management, and reap a good summer harvest. This year more wheat has been grown, and it is growing well. So long as we work assiduously, foster the idea of combating disasters to wrest a good harvest, pay close attention to several links, such as jointing, earing and filling, irrigate and apply sufficient fertilizer to it, and prevent and cure diseases, there will be prospects for a good harvest. We should also step up spring sowing successfully, assign cotton planting plans, and lay a solid foundation for a good harvest in the whole year.

Vice Governor on Commodity Circulation

SK281323 Shijiazhuang Hebei Provincial Service in Mandarin 2300 GMT 14 Apr 86

[Text] At the provincial rural work conference sponsored by the provincial CPC Committee, Vice Governor Hong Yi gave a speech on the province's rural commodity circulation problems.

After reviewing the province's achievements in reforming the rural commodity circulation system in the past few years and the new situations and problems that have emerged in the course of reform, Vice Governor Hong Yi pointed out: The present agricultural production should not be carried out in line with the past mandatory plans or the unified and assigned purchasing system. It should be carried out in line with the market regulatory system under the state guidacne plans. Changes in market prices will directly affect production. Therefore, we should not let market prices be changed wantonly and take passive action toward them. The changes in market prices should be guided by the state plan and be regulated through economic levers and administrative means.

Vice Governor Hong Yi said: The contract purchases of grain, cotton, and oil are not only economic contracts but also state tasks and the due responsibility of peasants. Therefore, we must guarantee their fulfillment. While touching on the contract purchase of cotton, he pointed out: In the past 2 years, the cotton growers refelcted that the practice of forcing down the grades and prices of cotton was carried out in the course of cotton procurement. We should make a specific analysis: First, such a practice actually exists; second, the quality of cotton declines because of weather conditions; and third, the masses misunderstand the readjusted policies because of inadequate publicity of the policies. Such a problem affects not only the relationship between the party and the masses but also the relationship between the supply and marketing cooperative and peasants. To solve this problem, we should educate the cotton procurement personnel and continue to implement the method of examining and collecting cotton by personnel of other localities. In addition, we should encourage the cotton growers to select representatives to participate in examining the quality of cotton and to supervise the work. We should strictly forbid the practice of forcing down the grades and prices of cotton in the course of procurement and should not permit illegal cotton transactions.

/12232
CSO: 4007/395

PEASANT INCOME QUADRUPLES WITH SCIENTISTS' HELP

OW291329 Beijing XINHUA in English 1050 GMT 29 Apr 86

[Text] Beijing, 29 April (XINHUA)--Peasant incomes in eastern Hebei Province, which was a poverty-stricken area for generations, have quadrupled in 3 years thanks to help from scientists, today's GUANGMING DAILY reported.

The newspaper said that output of grain had increased by 495,000 tons, cotton by 73,000 tons, pears by 60,000 tons and dates by 13,500 tons between 1983 and 1985 in the Heilonggang area, which covers 2,400,000 hectares in 50 counties and cities.

Average income per person reached 300 yuan last year, compared with less than 70 yuan 3 years earlier.

The area, in the Haihe River valley, used to be plagued by drought, infertile soil and salt contamination. Local peasants had to struggle against these conditions to feed themselves.

In the early 1980s, the State Science and Technology Commission and the provincial authorities sent more than 1,000 scientists from 9 research institutes and colleges and six prefectures to help develop the rural economy.

They have concentrated on water conservancy, soil improvement and the introduction of techniques to boost animal husbandry and high-yield crop-growing, including cultivation of wheat, cotton and fruit.

Using new techniques, grain output in one area covering 39,000 hectares rose to 5,400 kilograms a hectare last year--double the 1982 figure.

The scientists have enabled 57,000 rural families to pilot new techniques, are running technical training classes attended by almost 2 million peasant scholars and have distributed millions of booklets giving advice on methods of developing the rural economy.

/12232
CSO: 4020/306

HEBEI

BRIEFS

GRAIN SALES, PROFITS--Last year, grain enterprises in Hebei realized a profit of 46,930,000 yuan, an increase of 69 percent over 1984. They produced and sold 328,465 tons of grain and oil products, an increase of 46 percent over 1984 and realized a profit of 43,580,000 yuan, an increase of 20 percent over 1984; the fodder industry produced 350,000 tons of feed, sold 550,000 tons [as published] and realized a profit of 15,160,000 yuan, a 36.7 percent increase over 1984; the edible oil industry realized a profit of 38,590,000 yuan for the year, an increase of 10 percent over 1984. The sales volume at negoitated prices was 1,550,000 tons, a 6 percent increase over 1984, and realized a profit of 66,910,000 yuan and handed over 19,820,000 yuan in business taxes, the volume of goods transported by transportation enterprises increased about one-third that of 1984, profits for the entire year were 4,590,000 yuan, a 9.3 percent increase over 1984. [Excerpt] [Beijing ZHONGGUO SHANGYE BAO in Chinese 25 Mar 86 p 1]

CSO: 4007/398

EMERGENCY MEETING HELD ON FIGHTING DROUGHT

Special Work Teams Established

HK260851 Wuhan Hubei Provincial Service in Mandarin 1100 GMT 24 Apr 86

[Text] On 23 April, the provincial government held an emergency meeting in which it made further plans for the present work of fighting drought. It urged all relevant localities and departments to race against time, make concerted efforts, spare no effort in fighting drought, strongly support the work of fighting drought, and try all means to accomplish tasks of transplanting early rice and raising middle-season rice seedlings.

The provincial government decided that based on the 51,000 kilowatts of electricity supply designated for the purpose of fighting drought, the province would add an additional 50,000 kilowatts. Prefectures, cities, and counties that face serious drought should allocate at least one-third of their total power load for the purpose of fighting drought. At the same time, they should do well in readjusting the consumption of electricity during peak hours, so as to make the best use of electricity. Electricity that is designated for the purpose of fighting drought must not be used for other purposes under any pretext or in any form. Electricity that is designated for the purpose of fighting drought must not be distributed evenly, but must be supplied to those localities that need it most. The province shall try all means to promptly allocate to the localities diesel fuel needed to fight drought. Localities should also find ways to meet the demand for fuel for fighting drought. They should ensure the availability of funds for fighting drought. Relevant departments should ensure the supply of materials used for fighting drought. We must hold accountable those, as well as their leaders, who take no notice of the overall situation but often dispute over trifles and hinder the work.

The provincial government urged the leadership at all levels to really improve their work style and go to the forefront in implementing the work so as to strengthen guidance and ensure services. Except for meetings of the provincial people's congress, and provincial CPPCC, and meetings on flood prevention, the province will not hold any meeting before 15 May. Thus, cadres at various levels can do the work well.

The provincial government also decided that the provincial government office would organize special work teams responsible for keeping informed on the situation, supervising and examining the work, ensuring comprehensive coordination, and implementing various measures of fighting drought.

Urgent Circular Issued

HK260249 Wuhan Hubei Provincial Service in Mandarin 1100 GMT 25 Apr 86

[Excerpts] The provincial CPC committee and government issued an urgent circular on 25 April on doing a good job in fighting drought, rush-transplanting rice, and rush-sowing. The circular says that at present, the key moment in rush-transplanting and sowing, the drought is continuing to develop. In order to achieve victory in this work without missing the season, the provincial CPC committee and government demand that all areas and departments concerned take urgent action and go all-out to fight drought and provide support. Everything possible should be done to fulfill the tasks of transplanting early rice and nursing the mid-season rice seedlings. Thus a good foundation should be laid for reaping a bumper harvest over the whole year. The following instructions must therefore be followed:

1. The party committees, government, and the departments concerned must have a clearer understanding of the urgency and importance of fighting drought, rush-transplanting rice, and rush-sowing. At present nearly 6 million mu of early rice in the province lack water for transplanting. Some 1 million mu of mid-season rice nursing beds lack water and cannot be sown. The season does not wait for men. Whether or not we can fulfill in the next 2 weeks, up to the mark in quality and quantity, the task of transplanting early rice on 11 million mu and nursing 2 million mu of mid-season rice is directly related to whether or not this year's grain production target can be fulfilled.

2. Continue to put drought-fighting measures on a firm basis and solve the problems of providing the necessary electric power, materials, and capital. The provincial authorities are specially allocating 100,000 kilowatts of power for fighting drought. We must ensure that all of this is used for fighting drought. It must certainly not be diverted to other purposes. Prefectures, cities, and counties where the drought is serious must cut power for industry and township enterprises as much as possible. They must allocate at least one-third of their total power load to fighting drought.

3. Leaders at all levels must improve their work style and go deep into the frontline to organize and allocate manpower and material for fighting drought.

/12858
CSO: 4007/394

BRIEFS

EGG SUPPLY--In January and February, the province purchased 10,120,000 kilograms of eggs, an increase of 4 million kilograms over the same period last year, a 63.6 percent increase. At the beginning of the year there were 14,657,000 head of poultry in stock, an increase of 10,090,000 over the beginning of last year, a 34.4 percent increase. In the province, there are 180,000 specialized households that raise more than a 100 head of poultry. The province has planned to store 12,500,000 kilograms of eggs, an increase of 4 million kilograms over last year. [Excerpts] [Beijing ZHONGGUO SHANGYE BAO in Chinese 25 Mar 86 p 1]

CSO: 4007/399

JIANGXI

BRIEFS

WATER CONSERVANCY PROJECTS IMPROVED--Jiangxi has speeded up the repair of agricultural water conservation projects, and throughout the province, over 500,000 workers have already reported to work, and over 6,000 large and small projects, such as reservoirs, hydroelectric stations, sluices, and dikes are right now under winter repair. They have completed a total of over 10 million cubic meters of earth and stone work, and completed over 2,100 water storage and flood prevention projects. Jiangxi has over 9,300 large and small water reservoirs. According to a survey of the situation by concerned departments, about 50 percent of the reservoir projects are "dangerously defective" to varying degrees. Consequently, this year the province has made the primary targets of winter agricultural water conservancy construction the correct handling of leaks in large dams, blockages in flood discharge routes, silting up of channels and the dangerous sections of dikes in lake and river districts, and will emphasize the proper arrangements for labor and funding in order to facilitate further raising the results of water conservation projects. [Text] [Beijing NONGMIN RIBAO in Chinese 4 Dec 85 p 2] 12452

CSO: 4007/196

JILIN

BRIEFS

GRAIN AREA, INPUTS INCREASE--In Jilin, 3 million rural households have signed grain contracts with the state, the quota procurement task of 12.5 billion jin has been assigned to households. Based on statistics of the Jilin Agricultural Bank, at present, the area sown to grain is more than 50 million mu, an increase of 1.4 million mu over last year. As of 20 April, loans for grain production were 7.89 billion yuan and the provincial finance department has appropriated 60 million yuan for chemical fertilizer. [Excerpt] [Beijing RENMIN RIBAO in Chinese 1 May 86 p 2]

CSO: 4007/401

PORK SALES REPORTED DEVELOPING STEADILY

Beijing NONGMIN RIBAO in Chinese 4 Dec 85 p 1

[Article by Liu Hongbo [0491 3163 3134]]

[Text] Since Liaoning opened up the market for buying and selling pork, pork production has steadily developed. By the middle of November, the number of hogs in inventory reached 10 million head, a 6-percent growth over the same period last year, and of these, breed sows and piglets grew 10 percent and 30 percent, respectively, over the same period last year.

In the past few years, Liaoning's grain production has gradually increased, but because pork prices violated the law of value, farmers' hog rearing results were low, and pork production fell year after year. Pork in the marketplace often relied on ration for distribution, negatively affecting the improvement in the lives of urban residents. This year, after the prices for buying and selling pork were opened up, the purchase price rose eight fen over the wholesale price. According to a survey of Liaoyang City, with this purchase price, the net income for each 100 jin of pork could reach 26 yuan 3 jiao, an increase of 24.8 percent over last year's retail price. Hao Guangming, a hog-rearing specialist in Xinmin Village in Liaoyang's Taizi He District, sold 5 hogs this year, and the net income from each head was 64 yuan 2 fen, a 51.7-percent increase over previous year.

Since the prices for buying and selling hogs were opened up, the state, collectives and individuals have all become active in the market, and an unprecedented prosperity has appeared in the meat market. At present, the number of individual retailers dealing in meat has reached more than 5,200, a 2.4-fold increase over prior to opening up. According to July statistics, the amount of pork sold in the agricultural trade fair reached 63 million jin, or 21 percent of the total sold.

12452
CSO: 4007/196

FOOD INDUSTRY DEVELOPMENTS REPORTED, AWARDS GIVEN

Yinchuan NINGXIA RIBAO in Chinese 11 Dec 85 p 1

[Article by Fan Ying [5400 5391]]

[Text] During the Sixth 5-Year Plan period our region's food industry has developed rather rapidly. By the end of 1984, the total output value of the region's food industry had reached 166.19 million yuan, an increase of 52 percent over 1980. And by the end of this September, the completed output value has already reached 138 million yuan, an increase of 22.1 percent over the same period last year, and surpassing the level for all of 1980. It is estimated that we can top 200 million yuan this year, realizing the 6th Five Year Plan goal of doubling output value.

Prior to 1980, our region had only one middle-sized sugar plant capable of handling only 500 tons of sugar beets daily, and most of the rest of the food industry was workshop production with obsolete equipment, with no variety, and was unable to satisfy the needs of the people's daily lives. Since 1981, concerned departments have used our region's abundance of grain and other raw materials and the beneficial conditions of high quality to energetically develop the food industry, and have built and expanded a number of key enterprises for food processing in order to improve the lives of the people. For example, the Pingluo Sugar Plant, which can handle 1,500 tons of sugar beets was finished and began production in only 18 months' time. Others, such as the Yinchuan Sugar Plant, the Lingwu Cannery, Wuzhong Cigarette Plant, Yinchuan Brewery and the Dawukou Brewery, were expanded. Production conditions for food enterprises in many cities and counties were improved and we also developed a number of rural and township enterprises. The dehydrated vegetables from the suburbs of Shizuishan are already sold as far away as Shanghai, and are also sold abroad.

One striking characteristic of the region's food industry is that it manufactures new products based on the advantages of local resources and introduces new technology. The food inspection and testing office of the region's Department of Commerce has developed and produced new technology for "alpha" starch made from potatoes. This starch is used in an excellent binder widely used in the raising of eel and in many fields such as textiles, paper manufacturing and packaging, and the selling price per ton can reach about 2,300 yuan. The successful research and development of this new technique has found a very good outlet for the development and use of potatoes in our southern mountain areas. The autonomous region's science committee has organized more than ten work units to cooperate in attacking the problem of developing an outlet for the overall utilization of the wolfberry, and they have developed a series of more than 20 products. A series of sea buckthorn products from Jingyuan County and pollen products from Haiyuan County have also entered the market one after another. New-style food products featuring convenience, soy protein, and baby foods, etc., have all been disseminated.

Another feature in the development of our food industry is that we have stressed the development of Moslem foods. The food industry product management bureau of Yinchuan City organized ten plants in the five major Moslem food areas of sugar products, soy products, flavorings, milk products and soy pickled products, which produce a total of over 340 varieties, and of these, cakes, fermented bean curd, spirits distilled from sorghum or corn, etc., have been warmly welcomed by customers both inside and outside the region and wolfberry crystal candy and White Pagoda brand vitamin enriched powdered milk received the national "New Product Award for Children's Products" and the Gold Deer Award.

12452
CSO: 4007/195

CROP INCREASE REPORTED IN SIXTH 5-YEAR PLAN

Yinchuan NINGXIA RIBAO in Chinese 4 Dec 85 p 1

[Article by Zhao Guang [6392 1639]]

[Text] The region's farm production rose steadily during reform in the Sixth 5-Year Plan period, and the total output for grain reached the goal of the Sixth 5-Year Plan two years ahead of schedule. Oil-bearing crops, sugar crops, melons, vegetable sand other cash crops grew steadily and farm production as a whole showed the best situation it has since the establishment of the People's Republic.

Farming in our region has a rather weak foundation, particularly in the southern mountainous area which makes up over 70 percent of the cultivated land, natural conditions are deficient, and for a long time, the yield of grain and oil-bearing crops has been low and unstable. In 1980, the total grain yield was only 2.4 billion jin. But through effort, the regional total grain yield reached 2.89 billion jin in 1983, reaching the goal of the Sixth 5-Year Plan; in 1984, we further broke the 3 billion jin mark, which was a 28.1 percent increase over 1980. This year, in spite of the fact that there has been a reduction in the area sown to grain and the effects of attacks by disease, insects and unfavorable weather, there was still a bumper grain harvest, and estimates are that total output could reach over 2.8 billion jin. Simultaneous with this, there has also been rapid development of cash crops. This year it is estimated that the total yield of oil-bearing crops could reach 94 million jin, up 30.5 percent from 1980, and 4.5 percent over the planned goal of the Sixth 5-Year Plan; the total yield of sugar beets is expected to be 700 million jin, a 4.1-fold increase over 1980, overfulfilling the goal of the Sixth 5-Year Plan by 75 percent, and equalling an annual growth rate of 39.2 percent. Other cash crops like watermelons, vegetables, medicinal plants, and red and black melon seeds also developed a lot. At the same time, new cash crops like peanuts, edible sunflowers, and barley for beer, were also introduced suiting measures to local conditions.

The reason Ningxia's farming was able to develop continually and stably was: First, the countryside successfully went forward with the reform of its economic system under the leadership of the Central Committee's guiding principles and policies, implemented the responsibility system tying pay to production, and greatly motivated the production enthusiasm of the peasants.

Second, in accordance with the demands of specialization, commercialization and modernization, they continually adjusted the structure within farming, and while not letting up in grain production, actively developed a diversified economy, enabling the structure of farming to tend to become more rational. Third, the dissemination and application of achievements in agricultural science and technology and the development of rural knowledge have raised the level of scientific farming and raised our capacity to control natural disasters.

12452
CSO: 4007/195

DRINKING WATER PROBLEMS IN SOUTH RESOLVED

Yinchuan NINGXIA RIBAO in Chinese 24 Nov 85 p 1

[Article by Ma Heliang [7456 0735 0081]]

[Text] In the Sixth 5-Year Plan, the southern mountainous area of our region saw rapid development in drinking water projects for men and animals, with high results. According to statistics from concerned departments, in the past 5 years, apart from the Guhaiyang water project, the state invested 22.5 million yuan to built 36 drinking water projects for men and animals, sunk 400 deep wells for drinking water, built 318 water retention ponds (dykes), built 120,000 water cisterns and solved the drinking water problem for 290,000 people, more than 90,000 head of large domestic livestock and over 610,000 sheep, and also provided the water resources for developing township and town enterprises in the region.

The southern mountainous areas have draught 9 years out of 10, the rainfall in most places is only 200-300 millimeters, and evaporation is over 2,000 millimeters, and in the past men and animals depended totally on stored water from rain and snow or brought it in from great distances. The fluorine content in the drinking water for men and animals in many places in Yanchi, Tongxin and Guyuan counties exceeds the standards for drinking water several dozen times, seriously harming the physical health of the masses. After liberation, we built a number of additional water conservation projects, wells and cisterns, but far from met the need. Since the 1980 National Working Conference for Rural Drinking Water for Men and Animals, Ningxia has conscientiously implemented the spirit of the conference, and put forward specific plans for basically solving the rural drinking water problems for men and animals before 1990. In line with the spirit of "the masses, the locale and the state all doing some," we have used many channels to collect funds, and constructed projects for drinking water for men and animals. The peasants in six townships in the eastern mountainous area of Tongxin County used to have to bring in water from a distance of over 100 li, and water was more precious than oil. In 1982, the county party committee and the county government, with the support of the autonomous region's concerned departments, drilled a deep, water-rich, motor-pumped well in the Shijiantong area on the eastern side of Luoshan at an elevation of 2,000 meters, and through 2 years of struggle, completed the construction task of laying 72 kilometers of motor-pumped well water convergence pipeline, sending the sweet water of Luoshan through an underground water pipeline to the four most water-short townships, and basically solved the drinking water problem for 28,000 people, 40,000 sheep and 7,000 large domestic livestock. Six townships in the Moslem district of Fengjigou Township in Yanchi County have a high incidence of fluorine disease, and the region dispersed 80,000 yuan from its "three west fund," laid 43 kilometers of pipes and built 12 water retention ponds, and so basically solved the drinking water problem for 3,700 people, over 20,000 sheep and 800 large domestic livestock.

The construction of drinking water projects for men and animals has brought about the centuries' long wish of the peasants of the dry mountainous area for water and strengthened their confidence in mountain construction. At present, certain new and continuing projects for channeling water to men and animals are just now speeding up.

12452
CSO: 4007/195

GOVERNOR STRESSES AGRICULTURE, ELIMINATION OF POVERTY

HK260041 Xining Qinghai Provincial Service in Mandarin 2330 GMT 25 Apr 86

[Excerpts] Governor Song Ruixiang pointed out in his report on the Seventh 5-Year Plan delivered at the fourth session of the Sixth Provincial People's Congress that during the period of the plan it is necessary to go follow the guideline of actively promoting diversification without any slackening of grain production, vigorously develop grain production, and ensure its steady growth. It is necessary to stabilize the sown area of grain, increase agricultural input, and do a good job of maintaining and completing water conservancy installations.

We should gradually expand the cultivated area in the Haixi and Hainan areas and speed up the building of commodity grain bases. We should further perfect the system of placing contract orders for grain, and encourage and protect the peasants' enthusiasm for growing grain.

The province's grain output should reach 1,165,000 tons by the end of the Seventh 5-Year Plan, representing an average annual increase of 3 percent. On the basis of achieving a steady increase in grain output, we should further readjust the rural production structure and follow the path of all-round development and comprehensive operations, so as to maintain and spur the prosperity of the rural economy.

Governor Song Ruixiang said in his report: The problem of food and clothing for 730,000 people in 2 counties and 86 townships in Qinghai has not been solved. Proverty covers a wide area and is of great depth. It is also rather difficult to extricate these areas from poverty. To help these areas to solve the food and clothing problem as soon as possible, eliminate poverty, and proceed to catch up with the pace of economic development in the whole province is of great significance for invigorating the province's economy, speeding up economic development in minority-nationality areas, and strengthening nationality solidarity. The government at all levels must strengthen the sense of urgency and responsibility and basically solve this problem during the Seventh 5-Year Plan.

In transforming the poor areas, we must stress that spirit of self-reliance and encourage the masses to rely on their own labor to develop production, eliminate poverty, and get rich. Efforts must be based on the local natural and social conditions and economic foundation.

/12232
CSO: 4007/395

BRIEFS

SHAANXI RURAL SERVICE--This year the province has allocated some 3 million yuan of special funds to rural areas for strengthening the building of the rural service system. This is to support peasants in developing commodity production. [Summary] [Xian Shaanxi Provincial Service in Mandarin 0030 GMT 29 Apr 86 HK] /12913

CSO: 4007/397

TEN CHANGES IN PEASANT EXPENDITURE HABITS IDENTIFIED

Taiyuan SHANXI NONGMIN in Chinese 1 Mar 86 p 1

[Article: "Good Party Policies and a Progressively Rising Standard of Living Result in 10 Changes in Shanxi Peasant Consumption During the Sixth Five-Year Plan"]

[Text] During the Sixth Five-Year Plan there has been a sustained rise in peasant incomes, the level of living expenses has increased notably, and consumption patterns and composition have clearly changed:

1. There has been an across-the-board increase in all living expenses, and subsistence problems have been fundamentally resolved.

From 1980 to 1985 the per-capita net income among peasants rose from 155.7 yuan to 358.3 yuan, a 1.3-fold increase. Per-capita living expenses climbed from 134.38 yuan to 272.74 yuan, up more than 100 percent. In this short 5-year period the essential means of subsistence have been basically satisfied among the peasantry and subsistence problems have been resolved.

2. The alignment of components in peasant expenditures on material needs has changed from food, clothing, household conveniences, housing, and fuel to food, household conveniences, housing, clothing, and fuel.

From 1980 to 1985 there was a declining trend in the proportion of total living expenses devoted to per-capita peasant expenditures on food, clothing, and fuel, while the proportions devoted to household conveniences and housing each rose.

3. The proportion of commodity consumption has claimed a major position.

The proportion of overall living expenses claimed by commodity consumption climbed from 53 percent in 1980 to 67.7 percent in 1985. Leaving aside food, consumption of all other commodities combined has reached more than 98 percent.

4. The rate of increase in expenditures on cultural pursuits has been higher than that for expenditures on material needs.

From 1980 to 1985 peasant per-capita expenditures on material consumer goods rose from 130-plus yuan to 260-plus yuan. Spending on cultural pursuits jumped from 2 yuan 5 jiao 6 fen to 8 yuan 6 jiao 8 fen.

5. In peasant households the past composition of expenditures has changed from an exclusive focus on daily living expenses to a dual emphasis on production and living expenses.

From 1980 to 1985 the proportion of total peasant disbursements devoted to investment in production increased from 5.7 percent to 26.4 percent, while the proportion devoted to living expenses declined from 90 percent to 66 percent.

6. There has been a progressive increase in the quality of consumption in peasant material life.

As far as eating is concerned, peasants are in search of variety and conveniece; in dress they have switched from cotton textiles to diverse materials; and as for household conveniences, all manner of medium- and high-grade furniture, electrical household appliances, and other durable consumer goods are gradually making their way into peasant households. During the Sixth Five-Year Plan some 2 million Shanxi peasant households built new houses.

7. The composition of daily peasant consumption has changed from simple and uniform to diverse and multilayered.

In 1985 average living expences in Shanxi were 270-plus yuan, and foodstuffs represented 55.1 percent of these. The higher the income in the peasant household, the lower the proportion of expenditures on comestibles, the stronger the consumer capability, and the greater the market choice.

8. Peasant households are gradually shrinking in scale and the degree of household dependence on society is intensifying.

From 1980 to 1985 the average population of peasant households in Shanxi declined from 5.3 persons to 4.8 persons. The shrinkage in peasant household scale allowed a corresponding increase in peasant income and purchasing power. Nearly every kind of household convenience is bought from the market and household chores are becoming socialized.

9. The standard of living among peasants in mountain areas is rising faster than that of peasants in plains areas.

From 1983 to 1985 per capita daily consumption among mountain peasants rose an average of 8.9 per cent per year, a rate of increase faster than that in plains areas or in Shanxi as a whole. The gap between mountain and plains living standards is shrinking day by day.

10. The proportion of impoverished households is dropping and the proportion of prosperous households is climbing.

From 1982 to 1985 the proportion of poor peasant households--those which have a per capita net income of less than 200 yuan--declined 27.3 percent in Shanxi. The proportion of peasant households living at subsistence level, with a per capita net income of 200 to 500 yuan, rose 12.2 percent. The proportion of households netting 500 to 1,000 yuan per capita rose 13.1 percent, and the proportion of well-off families, netting over 1,000 yuan per capita, reached 20 percent in 1985.

12510
CSO: 4007/322

SPRING FARMING PROBLEMS DISCUSSED AT MEETING

HK260313 Urumqi Xinjiang Regional Service in Mandarin 1300 GMT 25 Apr 86

[Excerpts] The regional CPC Committee held an urgent report meeting on spring farming in northern Xinjiang at Shihezi on 23 and 24 April. The meeting demanded that the prefectures and counties and the divisional and regimental farms of the production and construction corps in the area view the overall situation, boldly shoulder heavy burdens, take full advantage of local strong points, and overfulfill the production plans, as a contribution to ensuring an all-round bumper harvest this year.

The meeting held that northern Xinjiang is the region's important base for commodity grain, animal husbandry, oil crops, sugar, and high-quality cotton. Natural conditions and water conservancy construction there are good and irrigation efficiency is high. There are relatively high degrees of mechanization and of intensive farming. This is the area where the farm reclamation regimental farms of the production and construction corps are concentrated. Hence, to take full advantage of the area's strong points is of decisive significance in attaining the agricultural economic targets for 1986 set by the regional CPC Committee.

In view of the drought in some areas of Xinjiang, the reduction of the winter wheat area to 600,000 mu below the planned figure, and shortfalls in the spring wheat and maize areas, leading cadres of the prefectures, counties, and divisional and regimental farms in northern Xinjiang declared that they would view the year as a whole while basing their efforts on the present situation, take advantage of their strong points, take the overall situation into account, and creatively implement the central and regional rural economic policies, so as to mobilize the masses' enthusiasm for production.

Li Shoushan, deputy secretary of the regional CPC Committee, spoke on the general situation in the region's agricultural production and on current work. He stressed that the key to improving agriculture lies in the leadership. The average amount of grain available per capita in Xinjiang is still below the national average. The situation of peasants finding it difficult to sell grain, which has appeared in some areas, is caused by poor circulation and insufficient storage space. Grain surpluses are only local and partial affairs. Hence, we cannot relax grain production.

/12232
CSO: 4007/395

ECONOMIC INFORMATION HELPS PEASANTS, HERDSMEN

OW010922 Beijing XINHUA in English 0907 GMT 1 May 86

[Text] Lhasa, 1 May (XINHUA)--Economic information helped peasants and herdsmen in Tibet's Ngari Prefecture prosper.

According to officials here today, the per capita income of the local people was more than double in 1985 over the previous year.

The per capita income reached 604 yuan last year in the prefecture, China's least populous region whose commerce and trade had long been underdeveloped. Meanwhile, the prefecture got 5.22 million yuan from agricultural and animal by-product sales, 250 percent more than its quota set for the year, said the officials.

The prefectural government has sent people to Tibet's neighboring Xinjiang Uygur Autonomous Region and China's inland places for market information. Local peasants and herdsmen who wanted to sell their products were then informed of the markets' prices by way of radio and TV broadcasting, and advertisements.

Lack of market information used to be a major headache for the local people since state mandatory purchasing of agricultural and animal by-products was replaced in Tibet in 1983 by a policy which encourages rural people to sell their products at market prices.

The government of the Ngari Prefecture has since taken it as a primary task to provide its local people with market information services.

The prefecture is a major base for Tibet's animal husbandry. It produces 1.5 million kilograms of sheep wool, 200,000 sheep skins, and more than 5 million kilograms of beef and mutton every year.

/12232
CSO: 4020/306

BRIEFS

LHASA TREE PLANTING--Lhasa, 22 April (XINHUA)--Lhasa, capital of the Tibet Autonomous Region, has planted more than 2 million trees over the past 4 years, officials here said today. The green area covers 17 percent of the city, with every resident sharing 7.6 square meters, compared with the 5 square meters for people in Beijing. The City Council has announded plans to green at least 40 percent of the city area by the end of this century. The greening drive started following the 1982 National People's Congress session, which called for an annual national voluntary tree planting drive. Now all the main streets are flanked by willows and poplars. Ten public gardens have brightened up the city with chrysanthemums, peonies, roses, and other flowers. In order to add color in dull winter, more than 10,000 pine trees have been planted in the city on "the Roof of the World." [Text] [Beijing XINHUA in English 1043 GMT 22 Apr 86 OW] /12232

MILK PROCESSING FACTORY--Lhasa, Xizang 1 May (XINHUA)--Tibet's first milk processing factory went into operation here today. The factory produces a daily average of 750 kilograms of fresh milk, plus a small quantity of sour milk, according to factory officials. The daily capacity should reach 4 to 5 tons by 1987, they said. Construction of the factory has cost 950,000 yuan. Part of the equipment was introduced from China's major cities such as Beijing and Shanghai. [Text] [Tokyo KYODO in English 1313 GMT 1 May OW] /12232

DIVERSIFIED RURAL ECONOMY GROWTH--Lhasa, 3 May (XINHUA)--Tibet's diversified rural economy is growing rapidly, and produced output worth more than 180 million yuan last year, according to an official in this regional capital. This was equal to a quarter of the region's total agricultural output value. There are now more than 53,000 families specializing in various forms of rural production, and almost 1,000 township enterprises employing about 10,000 peasants. In the northern Tibetan pastoral areas and southern Tibetan agricultural areas, many families who used to grow highland barley are now setting up their own businesses. Former herders now run transport services, and other locals have opened clothing and furniture workshops. This has boosted rural living standards. In Yadong County, the annual income of each person last year averaged 580 yuan, compared with the national rural average of 400 yuan. The development of the diversified economy has brought great changes in the Bayi District in Nyingchi County. People there earn more than 420 yuan a year on average, and about 40 percent of families have built new houses recently. [Text] [Beijing XINHUA in English 0841 GMT 3 May 86 OW] /12232

CSO: 4020/306

YUNNAN

COOPERATION WITH JAPAN ON RICE BREEDING REPORTED

Kunming YUNNAN RIBAO in Chinese 24 Jan 86 p 1

[Article by Han Ying: "Cooperation Between Yunnan and Japan To Breed Cold-Resistant, Disease-Resistant, High-Yield Rice Varieties Is Making Great Progress"]

[Text] Chinese-Japanese cooperative experiments using relevant genetic resources to breed cold-resistant, disease-resistant, high-yield rice varieties are proceeding smoothly. The two nations have used rice varieties from Yunnan and Japan to produce cross combinations, the progeny of which have been bred to seven generations. Nine strains have been selected that are cold resistant, disease resistant, and high yielding, and that produce fairly ideal rice quality. Regional trials are to be conducted on these strains this year in Yunnan, Guizhou, and Sichuan. This experimental research was undertaken jointly by the Yunnan Provincial Academy of Agricultural Sciences and the Japanese Tropical Agricultural Research Center. Preparations were made in 1982 and research commenced in 1983. Study of this problem is very important for changing Yunnan's potential superiority in rice breed resources into an economic advantage.

Round-grained nonglutinous rice is the dominant grain crop in both Yunnan and Japan. In rice production our common problems are damages from cold and from rice blast, and our common quest is for nigh output. Although Japan is a relatively advanced nation in terms of rice breeding and production, it has few paddy breed resources and needs abundant genetic resources to provide bioengineering materials. By contrast, Yunnan is one of Asia's major sources of rice cultivars, and it is also one of the world's few plateau rice-crop regions. The ecological environment is exceptionally complex, rice breed types are diverse, and our rice breed resources are the focus of domestic and foreign attention.

Some rice varieties in Yunnan are very cold resistant and produce large ears and grains on individual plants, but their plant types are below par and they are poor at tillering. By contrast, Japanese varieties are strongly resistant to rice blast, produce good colony plant types, are good at tillering, and produce a good quality of rice, but have rather small ears. Under the principle of mutual benefit, specialists from China and Japan have screened parents from both sides with respect to these traits, and have produced cross combinations. Every year for the past 3 years, in addition to conducting experimental research on hybrid breeding in Kunming, these specialists have gone to Hainan Island to do generational propagation, and this has accelerated the breeding process. Nearly 400 cross combinations have been compounded and bred through 7 generations. For each generation more than 5,000 lines have been produced, and from these certain ones with good properties have been essentially stabilized. Because the breeding cycle is long there are still further determinations of suitability and so forth that need to be made. However, in terms of the selection of favorable gene combinations by specialists from both sides, and in view of the kind of conscientious methods of rigorous selection and appraisal that they conducted on lower generations of hybrid progeny, this work has been very fruitful. Japanese specialist Jue Modeng [2228 2608 4098] told reporters that "from the upper generation lines that we have bred, we can accurately observe that Chinese and Japanese hybrid breeding is full of promise!"

Chinese and Japanese specialists each have their strong suits. Through cooperative breeding, technological exchanges have been mutually enhanced and friendship between Chinese and Japanese scientific and technological worlds has been improved.

12510
CSO: 4007/322

END

JPRS-CAG-86-022

11 JUNE 1986

China Report

AGRICULTURE

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-022

11 JUNE 1986

CHINA REPORT

AGRICULTURE

CONTENTS

PEOPLE'S REPUBLIC OF CHINA

NATIONAL

Output of Oil, Hemp, Sugar Increases in 1985
(Zhang Xiao'ou; NONGMIN RIBAO, 14 Jan 86) 1

Specialist: Stabilize Corn Planting Area, Increase Yields
(Tong Pingya; NONGMIN RIBAO, 20 Jan 86) 2

Interview on Calculating Peasant Income
(NONGMING RIBAO, various dates) 4

Effect of Welfare, Famine Relief on Rural Society
(Zheng Xiuman; NONGMIN RIBAO, 16 Jan 86) 8

Development of Rural Cooperation System Urged
(NONGMIN RIBAO, 18 Jan 86) 9

Unresolved Problems in Agricultural Insurance
(NONGMIN RIBAO, 18 Jan 86) 12

Research Status, Perspective in Soil Physics
(Yao Xianliang; TURANG, No 6, Dec 85) 15

TRANSPROVINCIAL AFFAIRS

Western China's Rural Economic Development Discussed
(Cai Ziwei; NONGYE JINGJI WENTI, No 12, Dec 85) 19

National Forests in Northeast China Seriously Depleted
(JINGJIXUE ZHOUBAO, 9 Mar 86) 28

Afforestation in Gansu, Qinghai Surveyed
(Zhao Yannian, Li Guosheng; LIAOWANG, No 47, 25 Nov 85) ... 30

ANHUI

Reducing Peasants' Burden Urged in Commentary
(ANHUI RIBAO, 9 Oct 85) 34

Leveled Food Prices, Better Market Management Reported
(Huang Qijie; ANHUI RIBAO, 5 Jan 86) 36

Water Conservancy Projects Discussed
(ANHUI RIBAO, 4 Jan 86) 38

Aquatic Output in Sixth, Seventh 5-Year Plans Compared
(Wu Zhongyi, et al.; ANHUI RIBAO, 17 Jan 86) 39

Conference on Improving Field Management Reported
(ANHUI RIBAO, 11 Jan 86) 41

'Spark Plan' Implementation Reported
(ANHUI RIBAO, 25 Jan 86) 43

Agricultural S&T Should Meet Farm Production Needs
(Wu Liangneng, Han Xiancong; ANHUI RIBAO, 25 Jan 86) 45

Issues in Swine Procurement Addressed
(Yu Lei; ANHUI RIBAO, 18 Apr 86) 48

Investment in Development of Xinjiang Grazing Lands
(ANHUI RIBAO, 5 Jan 86) 51

Briefs
Silk Output Growth Reported 52

BEIJING

Vegetable Production in Suburbs Reported Up
(Wang Yufang; BEIJING RIBAO, 24 Dec 85) 53

FUJIAN

Grain Problems, Solutions Discussed
(Chen Feitian; NONGYE JISHU JINGJI, No 1, Jan 86) 55

GUANGDONG

Stable, Coordinated Development of Rural Economy Urged
(Lan Fangli; NANFANG RIBAO, 20 Jan 86) 62

HEBEI

Province Supplies Beijing, Tianjin With Pork
(NONGMIN RIBAO, 10 Jan 86) 66

Growing Agricultural Markets Discussed
(Li Xiangrong; HEBEI RIBAO, 15 Jan 86) 67

Freshwater Fish Cultivation Discussed
(HEBEI RIBAO, 16 Jan 86) 68

Reservoir Fish Cultivation Urged, by He Jin, et al. 68
Commentary Promotes Freshwater Aquaculture 69

Briefs

Aquatic Output Growth Reported 71
Waste Cotton Purchases 71

HEILONGJIANG

Government Farm Afforestation Discussed
(HEILONGJIANG RIBAO, 27 Sep 86) 72

Briefs

Provincewide Wool Purchases 73

HENAN

Reform Has Revitalized Henan's Farms
(ZHONGGUO NONGKEN, 24 Dec 85) 74

Land Reclamation Progress, by Chu Rusen 74
Brief Introduction, by Peng Quanlin 75

HUNAN

Briefs

Tobacco Production, Purchases 77

JIANGSU

Increased Exports of Farm Machinery
(ZHONGGUO NONGJIHUA BAO, 15 Jan 86) 78

JILIN

Measures To Develop Food Industry Discussed
(Li Yongji; ZHONGGUO XIANGZHENQIYE BAO, 11 Dec 85) 80

NEI MONGGOL

'Great Hope' Reported for Grasslands, Afforestation Areas
(Zhang Xuanguo; LIAOWANG, No 47, 25 Nov 85) 84

SHANDONG

Briefs
Province Grain Procurement 87

SICHUAN

Difficulties in Regulation Cotton, Hemp Production Outlined
(Mu Bingsheng; SICHUAN RIBAO, 4 Apr 86) 88

Guidelines Formulated for Hemp Purchasing Prices
(SICHUAN RIBAO, 27 Sep 85) 90

Cotton Purchasing Measures Outlined
(SICHUAN RIBAO, 27 Sep 85) 91

Protection of Irrigation Projects Urged
(SICHUAN RIBAO, 6 Oct 85) 92

TIANJIN

Changes in Crop Patterns Reported
(Zhang Shixiong; NONGMIN RIBAO, 19 Apr 86) 94

YUNNAN

Rapid Development in Food Industry Reported
(Shao Zi; YUNNAN RIBAO, 4 Jan 86) 96

Expansion of Tropical Crop Growing Area Outlined
(Shu Ping; YUNNAN RIBAO, 7 Apr 86) 97

ZHEJIANG

Production, Consumption of Pork on Rise
(Chai Mabiao, Yu Fuchang; ZHEJIANG RIBAO, 31 Mar 86) 99

/7310

OUTPUT OF OIL, HEMP, SUGAR INCREASES IN 1985

Beijing NONGMIN RIBAO in Chinese 14 Jan 86 p 1

[Article by Zhang Xiao'ou [1728 2556 7743]]

[Text] Data supplied by the State Statistical Bureau show that due to the reform of the commodity procurement system in 1985, the production of cash crops other than cotton increased even further, on a base of several successive years' growth.

Statistical departments from various places estimate that last year oil-bearing crop output reach over 15.5 million tons, a more than 3.5 million ton or 30.2 percent increase over the previous year. Of this, peanuts, rapeseed and sesame seeds increased 38.6 percent, 32.9 percent and 40.4 percent, respectively. In 1985, oil-bearing crops output was up more than one-fold over 1980, and the average annual growth rate for the entire Sixth 5-Year Plan period was 15.1 percent.

Last year jute and ambari hemp output reached a historical high of over 3.4 million tons, a more than 1.9 million ton or 1.3 fold increase over the previous year.

Due to broad growth in southern sugarcane output, last year the nation's sugar crop yield increased over 11.9 million tons, reaching over 59 million tons, or a 25 percent increase over the previous year. Northern sugar beet production also increased on a rather broad scale.

Silkworm production was over 320,000 tons, a 4.9 percent increase; tea leaf production basically maintained the over 400,000 ton level of 1984.

According to an analysis by concerned departments, the reason for the broad production increases for oil, hemp, sugar and other cash crops was primarily because earnings from these crops are relatively high, farmers are willing to grow them and so the area planted to them was expanded. According to statistics from various places, last year the area planted to oil-bearing crops increased 37.6 percent over the previous year, and the area planted to sugar crops expanded 24.9 percent.

In addition, some areas show that due to the broad increase in cash crops, a trend has already appeared for the production of jute, ambari hemp, and peppermint to be greater than demand. All production and circulation departments should adjust production without delay, actively organize procurement and transportation, and so keep the farmers' production enthusiasm intact.

12452
CSO: 4007/261

SPECIALIST: STABILIZE CORN PLANTING AREA, INCREASE YIELDS

Beijing NONGMIN RIBAO in Chinese 20 Jan 86 p 3

[Article by Tong Pingya [0157 1456 0068]: "To Stabilize the Area Planted to Corn and Increase Yield per Unit Area; Suggestions by a Specialist"]

[Text] An advisory group of hybrid corn specialists from the Ministry of Agriculture, Animal Husbandry and Fisheries recently studied national corn production and its existing problems. They made six suggestions concerning the development of corn production.

1. Stabilize the corn planting area as soon as possible. Between 1980 and 1984 China's corn-planting area decreased more than 27 million mu. This decrease has had negative effects upon crop distribution, the planting system and production, and the development of the livestock industry. We must play close attention to this fact. During the past 2 years, corn exports have increased significantly, and the demand for corn by the livestock industry has also increased dramatically. We must adopt a policy to "Stabilize the planting area, increase yield, improve quality, and develop the processing industry." We must establish a new concept that corn is both a grain and feed crop in order to meet the diverse demands.

2. Emphasize the study and promotion of corn varieties having improved protein quality. Corn is a major source of feed for the developing livestock industry. The value of livestock production is currently about 15 percent of the total value of agricultural production. This is much lower than the 60 to 80 percent in developed countries. Between 1980 and 1982 per capita consumption of corn as feed was 591 kg in Hungary, 476 kg in the United States, 366 kg in Yugoslavia, 76 kg in the USSR, and only 3 kg in China. If livestock production were to increase 30 percent, most of our corn would be used as animal feed. In recent years the lysine, cysteine, and niacin content of selectively bred high-lysine hybrid corn varieties has been 1 to 2-fold higher than ordinary varieties. They provide high-quality feed for the development of livestock and poultry industries and have the following advantages: stimulate growth, require less feed, improve meat quality, and increase profits. Under conditions where the nitrogen supply is limited and additions are too expensive, we can help by developing hybrid corn varieties. The many benefits for corn planting, breeding, and processing will become evident.

3. Enhance the management of hybrid corn seed and improve seed quality. Reports from all areas indicate that the quality of hybrid corn seed has been decreasing in recent years, confusion and degeneration have been severe, and production has been using seed from overwintering of generations [yuedai 6390 0108]. In 1986, shortages of high-quality seed are severe. Bad seed has been substituted for good seed in order to avoid long-distance transportation, and prices have increased. We suggest that the seed sector should rapidly identify seed shortages, make centralized adjustments, intensify supervision, and try to avoid the use of seed from overwintering of generations. The germination rate of old seed should be determined, and the amount of seed required should be based on its quality. We can select seed from double and triple crosses and combined seed to supplement seed in short supply.

4. Increase usage of chemical fertilizer and corn yields. Increasing the use of chemical fertilizers is one of the major measures to increase corn production. The amount of fertilizer applied to corn has decreased significantly in many areas over the past 2 years. Considerable areas have used almost no fertilizer at all, and crop management has been poor. As a result, corn yields have decreased significantly. We suggest that the relevant sectors should emphasize chemical fertilizer production, adjust its sales price, and increase the amount of high-quality chemical fertilizer imported. Corn-producing specialized households should be given appropriate preferential treatment.

5. Steadily develop techniques for mulching, seedling cultivation, and transplanting. During the past 2 years, these techniques have been rapidly developed in some cold areas and areas with a long growing season, and corn production has increased significantly. We should be cautious about using those varieties that have long reproductive cycles and have been brought in from distant areas. Northeastern areas, such as Heilingjiang and Jilin, should especially remember lessons learned 3 to 5 years ago when cold temperatures caused severe reductions in corn production. Importation of selected varieties should be based strictly on local ecological conditions, and we must conduct long-term studies with varieties that have excessively long reproductive cycles.

6. Systematically expand corn planting in new southern regions. Little corn is produced in the southern rice-growing areas of China. Feed for 70 to 80 percent of our swine depends upon rice. The cost is high, and the reward from this feed is low. As the livestock industry develops, we must systematically expand the corn-planting area in the south and begin to study and promote certain objectives in the new southern corn-planting areas. For example: a study of a technique for alternating wet and dry crops in southern rice area (corn-late rice) and its economic results; and demonstrations of the use and promotion of high-lysine corn. This will provide technical support for the development of corn production and the livestock industry in the new areas.

13015/9190
CSO: 4007/268

INTERVIEW ON CALCULATING PEASANT INCOME

Beijing NONGMIN RIBAO in Chinese 14, 17, 18 Jan 86

[Three-part interview with an official from the general rural survey team of the State Statistical Bureau; date and place not given]

[14 Jan 86 p 2]

[Text] [Question] What does farmers' income include and how is it calculated?

[Answer] Farmers' income is an overall indicator reflecting developmental changes in rural society and economy, and is a basis for many important state policy decisions. For example, in drawing up national economic and social develop plans, carrying out an overall balance in the national economy, arranging for the people's livelihood and organizing market supplies, none can be done without data on farmers' income. At present, some areas still use it as the basis for establishing parity in rural work accomplishments, and in checking on cadres' work.

Because of the differing issues to be studied concerning farmers' income, we must adopt differing specifications, but in general, we can divide these into total income, net income and cost of living income.

Farmers' total income refers to the entire income obtained in a year through various productive or labor and service activities and through redistribution (income through savings or credit is not included). It includes various items of income obtained through collective, centralized management, income obtained from economic associations, income obtained from family businesses (including income from contract collective production or family sideline occupations not deducting that part for materials costs or taxes) and other non-productive income).

Farmers' net income refers to the income that remains for the farmer from his annual total income after deducting for family business expenses, payment of taxes, depreciation of productive fixed assets, turning in of collective contracted tasks, and gifts to friends and relatives in the countryside. This part of the income can be directly used for productive and non-productive investments, for improving their material and educational lives and for reproductive expenditures, and it is an important indicator reflecting farmers' actual income levels.

Farmers' per capita net income can be divided into productive net income and non-productive net income according to its character. Productive net income refers to the net income which comes from the five major material departments of agriculture, industry, construction, transportation, commerce and the food and drink business. The other non-productive income means the redistributive-type income obtained by farmers, including wage income sent back or brought back by people abroad, or obtained from state or large collective units, subsidies or relief income obtained from state financial administration, income obtained from collective public welfare funds or accumulation funds, and income sent by friends and relatives, etc. Although this part of the income is not obtained that year through production or labor and service activities, peasants can allocate and use it in production, their daily lives or other areas, which directly affects their consumption standard. Consequently, when we study farmers' actual income and consumption levels, we should include this part of their income. We can divide it into income in kind or in currency, according to its form. Income in kinds means the value of the output of various products produced during that year. It is an important constituent element of total social output, total output value and net output value. Because a part of farmers' income in kind is transformed into currency income through commodity sales, part of income in kind refers to the value of of their own consumption and remaining products after deducting the part sold from products produced that year, along with a sum of the value in money of the goods in kind sent or brought back from abroad and income in kind from state relief. Currency income refers to the income from selling goods, income from labor and services and other monetary income.

Farmers' living expense income refers to that income from their net income that can be used in daily living. It is identical to the category of living expenses income for workers and staff, and can be used to compare the income levels of urban and rural residents.

At present, some areas directly use total output value or net output value and rural enterprise output value to calculate what they call farmers' per capita net income, but because the statistical scope and specifications of farmers' net per capita net income is different from those of total rural social output value, total and net agricultural output value, and total rural income, this results in very wide discrepancies. Farmers' income, with its different statistical specifications, includes different spheres, and explains different issues. Consequently, income figures of different specifications cannot be use for comparison, otherwise, one could easily create misconceptions.

[17 Jan 86 p 2]

[Text] [Question] How are we to understand the present degree of wealth of our farmers?

[Answer] The wealth of China's farmers is primarily manifest in the their levels of income and daily consumption. Since the 3d Plenum of the 11th Central Committee, along with the reform of the rural economic system, the rural economy has developed rapidly, the level of the farmers' real income and level of their consumption have increased dramatically. According to a survey of rural households throughout the country, in 1984, the per capita net income for farmers was 355.3 yuan, a 1.4-fold increase over 1978 (excluding price factors; the same is true below); expenditures for daily consumption were 273.7 yuan, a 1.4-fold increase. But because economic development has been uneven between regions, there are discrepancies between households in the areas of labor, educational quality, production conditions, production technical ability and economic management levels, and so there are also big differences in income and consumption levels. At present, we can distinguish between four levels based on the per capita net income among farmers: in 1984, 14 percent of all farm households were poor, with per capita net income below 200 yuan; 17.8 percent were clothed and feed with from 200 to 500 yuan; 16.8 percent were comfortable, with from 500 to 1,000 yuan; and 1.4 percent were well-off, with over 1,000 yuan. We should say that most farm households have already freed themselves from poverty and solved the problem of food and clothing; some farm households have reached the standard point of being amply comfortable or even higher; but at the same time, there are still some farm households for which the problem of food and clothing has not yet been completely solved, though are are much better off than in the past. Seen as a whole, at present, the degree of wealth of our people is at the level of satisfying food and clothing needs. We should see that in spite of the fact that in the past few years there have been major improvements in farm households' standards of living, due to the fact that our past foundation weak weak and our starting point low, areas everywhere must still have a process of enrichment. Consequently, we must correctly estimate the degree of wealth of the farmers, and cannot over-estimate or under-estimate. At present, some areas and departments are over-estimating the degree of wealth of farmers, creating too great a burden on them. This issue needs our attention.

[18 Jan 86 p 2]

[Text] [Question] How can we get fairly accurate income data from farmers?

[Answer] Farmer income is a rather complicated data item. Since the responsibility system has been widely implemented throughout the country, rural production has changed from collective, centralized management to management by individual households, and the farm household has become a main rural economic entity. The question of how to get fairly accurate income data from farm households is very much worth study. Right now, the income figures in some areas are not right, and the main problem is survey methods. China has 180 million farm households, an obviously we cannot carry out a house by house overall survey. Because this not only uses a great amount of human energy and material resources, but due to real problems in the survey work in a house by house survey, there is no guarantee that the results would be accurate. In surveying households, some units carry out one-time recollections of the year's income, but because the time period is too long, recollections are not clear, there are a lot of omissions and the results are often inaccurate. There are also some counties that find a few cadres and just sit down and discuss estimates, and this method makes it even easier to fail to report or to make false reports. There are some places where there are a lot of man-made interfering factors. Some cadres take great delight in accomplishments, seek names for themselves and plan for profits, and intentionally raise the figures for farmers' income; and there are other places which hide the truth in order to get relief from the state or reduce their burden.

Actual experience has shown that if we wish to obtain accurate data on farmers' income, we must adopt scientific sampling methods and select a fixed number of fully representative farm households to carry out solid, detailed surveys. With the help of the surveyors, the survey households will set up a household balance sheet, and the surveyors will arrange farm income statistics by year and by season according to unified, regulated criteria. Using sampling methods, all areas can decide which levels to begin selecting survey families, based on the principles, demands, strength and funds of the survey. Figures for the selected points must be specifically calculated and must be representative. At present, the general team for the rural sample survey has adopted the method incorporating representativeness, random timing and symmetrical distance, and randomly selected 60,000 farm households in 840 counties within a scope of 30 provinces, autonomous regions, and cities administered directly by the central government (including Chongqing) to be regular survey points. Farm income data obtained through examining those households fully representative of the nation, and all cities and regions will be more dependable.

12452
CSO: 4007/260

EFFECT OF WELFARE, FAMINE RELIEF ON RURAL SOCIETY

Beijing NONGMIN RIBAO in Chinese 16 Jan 86 p 1

[Article by reporter Zheng Xiuman [6774 4423 3341]: "Welfare and Famine Relief Efforts Have Had a Significant Effect Upon Rural Society in China; in 5 Years, More Than 9.5 Million Poor Households Have Been Helped, and Most Have Escaped from Poverty"]

[Text] During the Sixth 5-Year Plan, and especially in 1985, the rural relief and welfare efforts of the civil administration system underwent new development. Famine relief and prevention were especially effective. Statistics show that more than 9.5 million poor households had received help by the end of last year and that more than 5 million of them had escaped poverty. Some of them have started on the road to prosperity. Production and people's lives in the famine-stricken areas have received appropriate attention, and the people feel secure. Prices are stable, and the society remains orderly. The rural population in China covered by the "five guarantees" policy is 2.56 million, among which 90.59 percent or 2.69 million [as printed] people now enjoy the benefits of the "five guarantees." These include food, clothing, shelter, medical care, and burial (education for orphans).

As reform of the rural economic structure spreads, the "double help" program of the civil administration sector has changed from simple survival relief to guaranteeing their livelihood, on one hand, and developing production, on the other. The emphasis has also changed from simply helping with planting to production of diversification. All central and local levels have contributed large amounts of money, materials, and labor during famine relief. According to statistics, more than 100 million cadres and citizens have been involved in famine relief and prevention. More than 270,000 members of the PLA have been involved in flood and other disaster relief. The army has also provided more than 2,300 planes (ships) and 15,000 vehicles and machines. The central government has allocated money for all types of famine relief; the portion used to provide daily necessities has reached 889.5 million yuan. There have been major reforms in the famine-relief programs in order to help people work to help themselves. Last year, 86 counties received significant assistance, and investment from all sectors reached 240 million yuan. These counties have since produced profits of more than 120 million yuan.

Work under the rural "five guarantees" has gradually become a policy. Nursing homes are now widespread in rural areas; there were more than 23,000 at the end of last year. This was an increase of 2,129 over 1984. The number of people entering nursing homes increased from 240,000 to 260,000.

13015/9190
CSO: 4007/268

DEVELOPMENT OF RURAL COOPERATION SYSTEM URGED

Beijing NONGMIN RIBAO in Chinese 18 Jan 86 p 1

[Text] Recently, some of the letters to this newspaper from grassroots cadre and the masses show that some farmers mistakenly take recent talk about developing and perfecting the rural cooperative system, and particularly the talk about further improvement of regional cooperative organization, as meaning that we want to "return to a big crowd." The main reason for this misunderstanding is that our work has not been sufficiently thorough and meticulous, and we have not made clear to the masses the distinction between the further development and perfection of the rural cooperative system under the new situation and the cooperativization of the past.

China's cooperative economy of rural collective ownership was set up in the cooperativization movement of the 1950s. The direction of agricultural cooperativization was correct, but at the same time, there were also serious faults. This was mainly that the process of cooperativization was too hasty and too abrupt, with many areas making major means of production public within only 1 or 2 years, and some areas even set up advanced agricultural producers' cooperatives in one step, thus violating the principles of voluntary participation and mutual benefit. Consequently, this leaves some people with the misconception that talking of cooperativization means merged property. Secondly, management was too concentrated, there was egalitarianism in distribution, and it did not honor rights of autonomy, thus inhibiting the the enthusiasm of producers, and causing the level of production development and the people's standard of living to increase more slowly, and the masses suffered. These are precisely the reason why many people fear cooperativization. This is perfectly understandable.

After the 3d Plenum of the 11th CPC Central Committee, the party summed up the experience and lessons of the past, reformed the earlier form of cooperative economy, implemented the responsibility system centered on family contracts, and also permitted farmers to join voluntarily in various kinds of cooperative organizations, thus breaking up the unitary form of cooperative system in the countryside which featured ownership by the three levels, with transitions from level to level, and was very highly centralized, and have now gradually created the conditions for making a new kind of cooperative economic system. Now, on the one hand, the former collective economy has already changed from a unified management system with a high degree of centralization to a two-tiered management system combining centralized, unified management with decentralized farmer management. The new system uses centralized methods when appropriate and decentralized methods when appropriate, both giving play to the enthusiasm of farm household management and also maintaining the strong points of collective, centralized management. And on the other hand, the cooperative economic organization newly started by the masses themselves is just now developing vigorously. This type of organization generally features voluntary participation and freedom of withdrawal; the means of production are held through buying shares, and use is shared; distribution is by labor, and people are also permitted to divide dividend by fixed proportions; there are no regional or occupational imitations. but they may straddle regions and occupations. This kind of organizational form breaks the old conventions of joint property, distribution only by labor, and only area-based social organization once things are cooperativized, but rather the new type gives consideration to the individual benefits of the masses, meets the needs of commodity production and has been warmly welcomed by the farmers. At present, the two-tiered management system for regional cooperative economic organizations must be continually improved, various types of specialized cooperative organizations must also be constantly developed and these must all go the new cooperative system route, and not the old route. To this end, we should repeatedly carry out propaganda work with the masses, and make them distinguish clearly between the old and new cooperative systems, dispel misconception and actively promote the development of the new cooperative system.

What particularly needs explaining here is that we must correctly understand the issue of perfecting tne two-tiered management system combining centralization and decentralization of regional cooperative economic organizations. We implemented the responsibility system in the countryside in order to perfect the management system of regional cooperative economic organizations, that is, changing the highly concentrated, unified management system to the two-tiered management system combining centralization and decentralization. It would be a mistake to take the implementation of the responsibility system as a division of fields and managing on one's own; and conversely, it is an even bigger mistake to hear that we must to do a good job with regional cooperative organization and immediately think that we wish to do away with family management. The responsibility system is a long-term policy of the party for the countryside, and no one can casually deny this; concentrated, centralized management and decentralized, farm household management are two different levels, mutually reliant, and one of them cannot be lacking. Since farmers contracted collective land, they have had fairly large management autonomy, but because their scope of management is very small, they still wish cooperative economic organizations to continue to supply services in the areas of irrigation, plant protection, epidemic prevention, mechanized plowing, agricultural capital construction, agricultural product processing and sales. The current problem is that because in the previous stage many places emphasized the aspect of "decentralization" in order to break the big rice bowl, this resulted in some areas neglecting the aspect of "centralization" and not doing these services well, and the masses are very dissatisfied. Consequently, in stressing the perfection of a regional cooperative economy, we must primarily demand that economic organizations be able to promptly and conscientiously get a handle on those matters that individual families and households find difficult or do not do will, in accordance with the demands of the masses, and do a good job with the collective, unified management link. This does not deny family contracts, but promotes the healthy development of family management. Because there are very large discrepancies in social and economic conditions between various areas, the content, form, scale and extent of the combination of centralization and decentralization should also be different.

To sum up, in the process of developing and perfecting the cooperative system, we must conscientiously proceed from the point of providing services to family farming in accordance with the demands of a commodity economy, and uphold the principles of voluntary participation and mutual benefit, while at the same time carrying out thorough and meticulous ideological work and so allow the new idea of cooperative economy to be known in every household.

12452
CSO: 4007/261

UNRESOLVED PROBLEMS IN AGRICULTURAL INSURANCE

Beijing NONGMIN RIBAO in Chinese 18 Jan 86 p 3

[Reporter's commentary: "Several Problems in the Development of Rural Insurance Require Immediate Resolution"]

[Text] Since China restored domestic insurance in 1980, rural insurance has developed quite rapidly. The family property of more than 10,000 rural households and the agricultural crops on more than 100 million mu of land were protected by insurance companies at the end of last year. As the area covered by rural insurance has gradually expanded, the economic benefits of insurance have become more obvious. The many rural households that have insurance use it as a support in order to take larger and larger steps to escape poverty and become prosperous.

The Chinese People's Insurance Co. has based the management directions of rural insurance on China's own situation. These directions are "Not to lose and not to gain; have extra to prepare for times of hardship." The company has summarized its large-scale experiences with property insurance for township and town enterprises. In the animal-breeding industry, coverage and premiums are law, coverage does not include residual value, and methods for payment of claims have been established. In the agricultural planting industry, coverage is limited to the actual costs and insurance covers only one or two major hazards in order to protect against losses from major disasters. These approaches are relatively well-adapted to China's current rural economic conditions, farmers can afford the insurance premiums, and the insurance company can also afford the claims.

The structure of rural insurance is being further established and perfected in order to allow its rapid development. There are now 1,542 branch companies at the county level and 162 central branch companies. The leadership cadre includes more than 20,000 people, but the demand created by the rapid development of the rural economy is far from satisfied.

China has more than 800 million farmers, and the rural insurance business has an extremely large potential market. Based upon the development of the rural economy, the ongoing National Insurance Conference suggests that, starting from the Seventh 5-Year Plan, rural insurance must develop even faster. By the last year of the Seventh 5-Year Plan, rural insurance should comprise about 40 percent of domestic business. This reporter understands, however, that rural insurance has encountered many problems during its development that need to be solved:

1. Strengthening the leadership of rural insurance and stimulating its development. Rural insurance is essential to the economy. Insurance payments and loss prevention not only stimulate development of the rural commodity economy but also actually encourage farmers to become less conservative. Leading comrades in some areas and sectors, however, do not treat rural insurance correctly. They believe that the premiums collected by the insurance company are similar to arbitrary allocations by some units. This has caused misunderstanding in the minds of the farmers who have come to believe that insurance increases the farmers' burden. We hope that all levels of the party and administration will change their concept and truly understand the economic benefits of insurance. When they arrange their work schedule, they should include rural insurance in their daily routine and help the insurance company to solve real problems as much as possible.

2. Establish and strengthen the rural insurance structure, add necessary office equipment, and allow large numbers of farmers to obtain insurance. One-third of the counties nationwide lack an insurance structure; some have the structure but lack the necessary equipment and means to function efficiently. In some counties, the insurance company's sign is hanging on a tree; in others, the insurance company has been squeezed into a simple storage area of little more than 10 square meters. The insurance workers have to ride bicycles or walk tens of hundreds of miles to investigate disaster areas. In order to stimulate rural insurance development and satisfy the urgent need for insurance by large numbers of farmers, this reporter believes that the relevant sectors must study and solve these problems as rapidly as possible and change the present difficult situation of insurance companies.

3. Not only insurance covering the planting and breeding industries, but also other insurance such as that on family property should be exempt from taxes. Rural insurance is strongly affected by natural factors. China's lands are vast, climate and geological conditions are complex, natural disasters are frequent, and large losses of rural property occur every year. The claim rate of both the planting and breeding industries are now very high. In some areas, claim payments greatly exceed income from premiums. Continued development of rural insurance requires accumulation of necessary reserves in order to pay claims in years with major disasters (for example, a Force 9 typhoon caused a flood disaster in several northeastern provinces). This reporter understands that the finance department has decided not to levy taxes on insurance directly related to production by the planting and breeding industries. Business taxes, income taxes, and adjustment taxes are levied on other rural insurance. This affects the accumulation of rural insurance reserves and also weakens the ability of the insurance company to serve large numbers of farmers. In this way, the farmers burdens are indirectly increased. We suggest that the appropriate sectors should seriously consider this

situation and remove all taxes on the planting and breeding industries as well as on miscellaneous insurance for individuals or communities below the county level. This will enable rural insurance to adjust premiums to the risks and to coordinate and stimulate the development of rural insurance.

13015/9190
CSO: 4007/268

RESEARCH STATUS, PERSPECTIVE IN SOIL PHYSICS

Nanjing TURANG [SOILS] in Chinese No 6, Dec 85 pp 287-289

[Article by Yao Xianliang [1202 6343 5328], Nanjing Institute of Soil Science, Academia Sinica]

[Excerpt] China's Current Status in Soil Physics

China's soil physics has been slow in its development, and it has gone through the research or mechanical compositions and structural characteristics of soils in the last 30 years, but its major development was carried out through the process of our national duty achievement after the founding of the PRC. For example, the research on black soil structure and characteristics was pursued in order to rationally develop and utilize the black soil in the northeast; large-scale field and laboratory measurements of soil moisture and physical properties were carried out in order to develop the irrigation systems in the lower Huang He region, and at the same time to train cadres during the work process. During the 1960's, there had been permanent or semipermanent soil moisture measurement stations being established in the southern red soils, northeastern black soils, northern humid soils, and northwestern yellow soils. At the same time, the development of special research topics, such as the structure of red soils, and physical properties of paddy soils, has enabled us to obtain a large quantity of scientific data and establish a standard of requirements for conditions in laboratory measurements. Since the 1970's, through the gradual introduction of the energy concept to soil moisture research, the installation of necessary equipment for soil moisture research in experiment stations has taken place, especially since the passage of "soil moisture energy concept training session" held in Wugong, 1979 and the Second National Soil Physics Technical Meeting held in Dalian, 1982, there has been tremendous progress in understanding and utilization of the energy concept. Systematic research on the agricultural significance of deep layer water storage in the arid plain of northwestern yellow soils, physical properties and their control of high-yield paddy soils, and soil magnetic property and its application in soil classification and soil improvement, etc. have been carried out. These areas of research have a positive effect on both the stimulation of China's soil physics development and solving the problem of agricultural production.

Since the founding of the PRC, China's research in soil physics has made significant progress, yet when compared with the demand of national production and the standard of progress abroad, we lag behind.

1. There are very few specialized technical and teaching personnel, and are personnel with poor fundamental background whose training is outdated and no longer meets the work requirements. If we just compare with Japan and India, not to mention the United States and Soviet Union, they have a branch of personnel with good physics and mathematics background, and a group of technical and teaching staff specialized in soil physics and who are familiar with agricultural production. Major large countries have special organizations for soil physics research. In the Soviet Union, except for the Dao Ku Qia Ye Fu [6670 1655 1874 5102 1133] Institute of Soil which has a soil physics research laboratory and a soil moisture research laboratory, soil institutes in all major socialist republics have soil physics research organizations; in England, the Rothamsted Experiment Station has a Soil Physics Department which carries out soil physics research work and its Plant Nutrition Department is also involved in much physics research. Australia's Commonwealth Scientific and Industrial Research Organization (CSIRO), Division of Soil and Mechanics, all have special soil physics research within the institute. In Western Europe, countries such as Germany have several major soil institutes, and they are staffed with limited personnel, all have soil physics research laboratories or units; even Finland even has established a soil physics research center. In recent years, the progress of soil physics research has been quite rapid in India. China is the third largest country in the world, and accordingly it should occupy an important place in this area of research. Yet China's specialized research organizations have decreased from day to day and technical personnel have been down to only a few, thus it is impossible to form a research group.

2. There is no one doing soil physics work on topics closely related to industrial and agricultural production. For example, when a nationwide soil survey is carried out, the emphasis is mostly placed on the content and/or storage of soil nutrients and hardly on the soil's physical factors that might prevent the effective use of stored nutrients; and in many survey areas, those agricultural chemical properties affecting most recent production are being considered, and long-term significance of physical properties are often ignored. Recent information on agricultural production indicates that in order to increase crop production up to the economically efficient level in cultivated fertilized soils, research on soil physical properties must be included as an important item. Research areas such as cycling of moisture among soils-plants-atmosphere, utilization of resource satellites, and computer monitoring and prediction of soil moisture and heat are undertaken even less because of the nature of such research which has significant strategic implications.

3. The accumulation of fundamental data and marginal interchangeable research work are pursued even less. If very little scientific data on physical properties and their conditions are collected and analyzed systematically from our nation's major agricultural lands in red soils, paddy soils, and northern arid land, there would be no basis for long-term

experiments, and thus we would be unable to present strong scientific evidence to evaluate the best crop rotation or tillage methods in these lands. Marginal science, such as the mobility of soluble substances in the soils, is currently a very actively pursued research area around the world because not only does it have an influence on the availability of soil nutrients, but at the same time, it has a close relation to the prevention of secondary salinization and problems related to environmental protection. We have very little in-depth research in these areas. The relationship between the physical properties of soil and plant root activity is also an important subject in soil physics research. In the United States, Auburn University has a research group studying root systems-environment and has done a great deal of work in this research area, yet today we are still limited in doing research on root nutrients absorption in solution culture.

Perspective

From the trend of rapid advancement worldwide and our nation's weakness in soil physics research, it is very clear that currently the most pressing effort is to train and educate a branch of personnel highly qualified with technical speciality in soil physics. At the same time, according to the demands of our nation's four modernizations and scientific development, we should place great emphasis on nationwide development of research work in soil moisture, soil structure, and soil mechanical properties, and also the development of research on soil temperature.

As we all know, there is a severe shortage of water resources in China's arid and semiarid region, and yet there is a huge waste of water resources in humid, high-rainfall regions that results in losses of water and nutrients. Subject matter related to the management and reasonable utilization of water resources is closely related to strategic problems in the nation's economic development. Thus it is suggested that those relevant research units in arid and semiarid regions should proceed to preserve and transport soil water in those regions, to develop irrigation systems economically and to emphasize cooperation in work areas, such as establishment of a long-term monitoring, prediction, and observation of soil moisture. A special effort must be made to determine a short-term prediction or to achieve soil moisture balance in model regions, and to offer theories on the rational use of natural rain water and economical use of water, and effective measures. Emphasis should be made to establish long-term soil moisture measurement stations based on standardized methods so that the data can be utilized and compared. In the south, such as the Zhu Jiang delta, the Chengdu plain, and the Chang Jiang delta regions where paddy fields are densely located with a cross network of rivers, emphasis should be placed on continuous cooperation to develop draining water-logged areas for fall crops, in addition, to determine the depth and distance of drainage ditches for different soil types in order to improve the soil irrigation system. To pursue research work on principles and methods of water-saving irrigation techniques and the soil-related problems which might occur where paddy fields are converted to dry land.

In the United States, Japan, and some tropical and subtropical countries, due to a long-term practice of intensive farming and agricultural economic system, or excessive reclamation and denudation which has intensified a rapid deterioration of the structure of top soils, soil erosion, and loss of nutrients, in some areas this is the major cause of crop failure. China has a very large population with little land, especially arable land, and the degree of intensive farming in some areas is even higher than that in the United States and Japan. Obviously, the degree of intensive farming will continue to develop due to a continuous increase in population and a further decrease in arable land. In order to guarantee the smooth process of this strategic measure, we must understand the effects of intensive farming on, and protection of, the structure of top soils under our agriculture production conditions (i.e. very little crop residues being left over after harvest). It is suggested that all relevant departments, including specialities in soil chemistry, soil physics, and soil biology (biochemistry included) cooperate in studying this problem.

With the rapid development of agricultural production, our soil physics researchers are facing a tough challenge from within and abroad due to the demand of developing situations. Following the establishment of the four modernizations, the future of soil physics research is wide open and China's soil physics research should advance rapidly under the new situation.

12865/9835
CSO: 4007/263

WESTERN CHINA'S RURAL ECONOMIC DEVELOPMENT DISCUSSED

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 12, Dec 85 pp 3-7

[Article by Cai Ziwei [5591 13110251], of the Chinese Agricultural Economics Institute: "Several Issues Concerning Western China's Rural Economic Development"]

[Text] Viewed from the angle of the macro-developmental strategy for China's socialist national economy, the fact that the center of national economic construction will gradually shift west, and by the end of the century and the beginning of the next century, the emphasis will be on developing the west is an historically inevitable trend for the modernized development of China's socialist economy. Whether or not the western region's economy can effectively develop not only relates to the prosperity of the 11 western provinces and autonomous regions, but also directly affects the ups and downs and the success or failure of the entire national economy. Consequently, developing the west's economy should not only receive the serious attention of the western region itself, but it should also have the concern of the east and central regions and even more, the close interest and attention of the various departments of the central government.

This article discusses a few views on the developmental issues for the rural economy in the process of developing the economy of the west.

I. The development of the western rural economy, particularly the development of agricultural, must be the foundation all along of the economic development of the whole western region.

First, the rural population constitutes about 85 percent of the 292.05 million population of the 11 western provinces and autonomous regions, and this figure means that the development and prosperity of the west is a matter that not only concerns the urban population of over 40 million, but even more important is that it concerns the enrichment of 250 million people and developmental issues. The development of the west's economy must consider in a comprehensive way the rural population that makes up the vast majority of the western region's population, and must not follow the old historical economic development strategy of sacrificing the countryside as the cost for developing urban industry. Without the development of the rural economy, there can be no true development of the west's economy; without true prosperity for the rural economy, there can be no prosperity for the west; and without the enrichment of the rural population, then we cannot truly enable the people of the western region to achieve the relatively prosperous level of being well-off.

Second, agriculture is the foundation of the national economy and is the basic source for mankind's means of living. Without the grain and other necessary means of living provided by agriculture, mankind could not survive and economies could not develop. Basically speaking, if the labor productivity for agriculture does not increase, people cannot fully develop industry, communication and other material means of production, not to mention cultural and educational institutions. Both domestic and foreign experience show that in shifting the strategic focal point of national economic construction, agriculture must first move forward a pace. One of the important lessons of China's three-line construction is that agriculture has not caught up. In recent years, there has been fairly rapid development of agriculture in the 11 western provinces and regions, with the agricultural output value maintaining an average annual growth level of 7.8 percent, which is just slightly lower that the national level of 7.9 percent; the rate of growth for grain has exceeded 3 percent, and Sichuan, which was rather outstanding, has achieved a provincial per capita grain [production] of 800 jin, setting a record. With the development of agricultural production, there has been sharp change in the supply and demand situation for agricultural products, people's standards of living have rapidly improved, and the issue of feeding and clothing the people is now gradually being solved. However, the development of agriculture has still not kept pace with the requirements of the west's economic development. Seen as a whole, the commodity rate for the western region's grain and other agricultural products has not yet reached 30 percent, there are still inadequate supplies of grain and other agricultural products and the amount of grain brought in from the outside each year continues to grow. In 1957, only Guangxi and Qinghai out of the 11 western provinces and autonomous regions brought grain in from the outside, totalling 189 million jin (trade grain), but by 1983, apart from the self-sufficiency of Guangxi and Sichuan, the other provinces and regions all needed to bring in grain, totalling 7.35 billion jin, and net increase over 1978 of 4.16 billion jin. In the process of adjusting the agricultural structure in the days to come, all the large area of land of the west with a slope greater than 25 degrees should gradually be withdrawn from cultivation and returned to forests, animal husbandry and grasslands. This is not only necessary for the transforming the west's rural economy toward a benign cycle, but is also necessary for permanent control of the Huang He and Chang Jiang and eliminating a tremendous hidden peril for the Chinese people. In this way, the area planted to grain will be greatly reduced, and the contradiction between supply and demand for grain will be even sharper. Of course, within a certain number of years, the state will continue to aid the west each year with a considerable amount of grain in order to help it halt the destruction of vegetative cover and other natural resources, restore ecological balance and a benign cycle, and adjust the rural industrial economy. But examined from the angle of the western region's economic development, and particularly because of the limitations posed by the western region's remoteness and communication conditions, even if there is grain, it is difficult to ship it out in great quantities, and so we cannot put our hopes on other provinces shipping grain in large quantities of grain.

Basically speaking, we must still rely of the western region itself to take care of the vast majority of grain, and the state can only ship in grain to the extent that communication and transportation conditions permit. (This certainly does not mean that every province must attain self-sufficiency in grain, but means we should achieve basic self-sufficiency within large territories.) Consequently, agricultural production has a very important role in the process of the west's economic development. Without agricultural development, it would be very difficult to sustain the development of the western region's economy.

Third, the western region has advantages in natural resources for developing agriculture. The west has always been famous for being vast in territory and rich in natural resources. Not only does it have abundant coal and oil reserves, but it also has large metal deposits. But under present conditions, the things that can show results the fastest is the vast land, the broad prairies and the large numbers of improved breed animals. These are the basic conditions for the development of agricultural production and animal husbandry production. Apart from Sichuan, with its special circumstances, the 10 other provinces and autonomous regions of the west all have small populations and vast territory. According to statistics, the total area of the 10 provinces and regions is 9.4 billion mu, or 65.3 percent of the nation's territory. Of it, 368 million mu is cultivated land, or 25 percent of the nation's cultivated land, making 1.9 mu of cultivated land per capita. There are 4.49 billion mu of grasslands, or 93.8 percent of the nation's grassland, and there are 460 million mu of grassy mountains and slopes in agricultural areas, or 43.9 percent of the nation's. In addition, there are 670 million mu of forests, or 38.6 percent of the nation's. These abundant natural resources which can be used for developing agriculture and animal husbandry are the greatest natural resource advantage of the western region. Although large portions of the land have little rain and accumulated warmth and so are weakened, but with these kinds of advantages, there is still tremendous value to developing and using them. If we can develop them effectively, we can change these latent natural advantages into real economic advantages and we can bring great material wealth to the people of the western region, and bring prosperity to the western region.

Consequently, throughout the process of developing the western region's economy, we must place the development of agriculture and animal husbandry in an important fundamental position, and absolutely must not neglect or let up on them.

II. The western rural economy is still not very developed, and now faces a pressured, severe situation.

Due to the restrictions of historical reasons and various unfavorable factors, despite the 6 years since the 3d Plenum of the 11th CPC Central Committee, the rural economy of the western region has made big progress, but is still undeveloped and is far below the the national average level: 1) According to calculations of the area sown to grain, in 1984 the average per-mu grain yield for the 11 western provinces and autonomous regions was 403.2 jin, or 16.2 percent below the national average. 2) The grain produced per capita in the 11 western provinces and regions was 678.3 jin, 14.2 percent below the national average. 3) In 1984, the total output value for rural enterprises in the 8 provinces and cities of Jiangsu, Zhejiang, Guangdong, Shandong, Liaoning, Beijing, Tianjin and Shanghai was 96.14 billion yuan, which was 56.3 percent of the national rural enterprises output value, and the total output value for the 8 provinces and regions of Nei Monggol, Ningxia, Xinjiang, Gansu, Qinghai, Yunnan, Guizhou and Guangxi was 7.19 billion yuan, or only 4.2 percent of the national rural enterprises output value. 4) In 1984, the national per capita output value in rural enterprises was 203 yuan. There were 9 provinces with a per capita output value under 100 yuan and 8 of these provinces and regions were in the western region: Sichuan, 63 yuan; Xinjiang, 72 yuan; Qinghai, 70 yuan; Yunnan, 59 yuan; Nei Monggol 56 yuan; Gansu, 50 yuan; Guangxi, 47 yuan; and the lowest was Guizhou, with only 39 yuan. 5) According to preliminary statistics from the Ministry of Agriculture, Animal Husbandry and Forestry, the average per capita income of farmers in the 11 western provinces and autonomous regions was about 220.1 yuan, which was much lower than the national average. In addition, conditions for agricultural technological equipment and irrigation, cultural, educational, scientific and technical standards, and conditions for communication are also well below the national average.

Historical backwardness certainly must not be feared, for the history of economic development has no lack of models that did all they could to get ahead and came to surpass the old-timers. Now that we have an eye to future development, we should more fully recognize and overcome the disadvantageous conditions now existing in the west which are restricting development.

The advantages of natural resources are are potential, and not actual, true advantages. The development of a modern economy hinges on funds and technology (including production technology and management technology), or in other words, it hinges on the two areas of funds and human talent (including production technology talent and management talent). Compared to the eastern provinces, the western regions's inferior position in technology and human talent goes without saying. The objectives of investment directions for the whole country in the near future are already quite clear, and the focus of economic development is in the east, mainly the development of economic regions of the coastal provinces. It is estimated that within 10 years, including the period of the Seventh and Eighth 5-Year Plans, the nation will gradually increase its investments in the west, but it will probably not be able to put in more funds into economic development of the west. Consequently, for the next 20 years, in the process of laying a foundation for the developmental center shift to gradually from the east towards the west, the development of the west's economy will be limited by funding shortages all along. No doubt, this is an unfavorable condition. That is to say, accumulating and struggling for funds, nurturing and struggling for human talent--these are two very arduous tasks, and both must be completed with all our might.

Generally speaking, the basic route to enlivening the rural economy and increasing farmers' income lies in shifting more surplus labor from agriculture into non-agricultural sectors, and so creating changes in the whole rural labor structure and in labor productivity. This is the route that some areas in the east have already taken or are right now taking. Of course, it is also the path that the western regions's rural economic development must go. But it is worth noticing that along with the reform of the economic system, the market mechanism is now entering the rural economy from a broader and broader sphere. A huge rural commodity market is just now rising up. In this kind of historical environment, not very many favorable conditions can be attained by the western regions. The eastern, central and western regions are all, without doubt, on the starting line, with no distinction between eastern and western land, or between rich and poor people, in the face of a commodity economy. However, the race has already gone to the swiftest, the east, which has been first to become rich, and in this race, the quality and cost of western products is very often inferior. This puts pressure on agricultural labor to shift into non-agricultural sectors. And in the past few years, the non-agricultural realm has certainly has not been full of employment opportunities. Due to the backwardness of the commodity economy, and particularly the non-development of rural enterprises and tertiary industries, vast numbers of farmers lack a way out, and have been bound to the land. Even in cities, the unemployment situation in some places is quite severe.

The development of the west is an historical necessity, but the national economy is moving from east to west, and to make the west the center of development at the beginning of the next century is not a process that will materialize simply on demand, and if the west cannot lay a good foundation and prepare the conditions to greet this shift, then it cannot become a reality. And to lay a good foundation and prepare conditions, we must clearly recognize the situation, suit the national economic environment which has already changed, overcome various unfortunate conditions, meet difficulties and move forward.

III. Strive to develop a rural commodity economy, and prepare well for greeting the shift in strategic focus of national economic construction.

Of course we must have relevant material input in order to prepare well for the shift in strategic focus for national economic construction, but even more important is to establish a proper developmental strategy for the western region's rural economy, pursuing various economic relationships, setting up excellent mechanisms to move the economic, creating an economic development environment full of vitality, striving to develop a rural commodity economy, enhancing the west's ability to take in science and technology, and improving the basic quality of life for the people of the west. That is to say, enable the entire western region itself to have the ability to develop a commodity economy, and have the ability to accumulate funds and train and nurture human talent. This is a long-term process, but we cannot wait twenty years, and must start right now. A journey of 1,000 li begins with a single step. So how are we to lay a foundation and meet the shift?

First, clearly recognize beneficial situations by using facts to seek the truth, forestall and overcome any negative, procrastinating feelings, and establish even higher goals. The western region's economy is truly backward, but just because of this, we cannot feel that changing the face of the west is a very distant goal, and so have insufficient confidence and be slack in our work. In the process of developing the west, many places have put forth many slogans. Gansu has set forth "Stop destruction in 3 years, and solve the issue of food and clothing in 5 years, and change the face of the province in 10 or 20 years." Certainly, developing the west is not something that can be done in a day, and we cannot hope to accomplish the whole task at a single stroke. But maintaining a good ecological environment, solving the problem of food and clothing for the masses and changing the face of the west certainly are not three mutually exclusive issues, but they can be completely unified within the whole process of developing the west. The ancients said: those who seek the best, get the mediocre; those who seek the mediocre, get the inferior, and those who seek the inferior get nothing at all. And so we cannot just think about "managing food and clothing" but must also add "managing getting rich," and "managing quadrupling output," and must combine the stopping of destruction and solving food and clothing, with getting rich and quadrupling output, unify plans, deploy [resources] rationally, placing the word "rich" at the front, and the issue of food and clothing will be contained in it. In recent years, some comrades have advanced the so-called "stair-step theory," which says that the trend for the spread of technology is starts from developed areas, gradually passing through middle areas and then later spreading to backwards areas. On the surface, this argument has certain merit, but it is also has a one-sided and mechanistic flavor to it. The western region certainly cannot passively sit and wait for it to be spread, sit and wait for opportunities, but absolutely can actively rise up, join directly with the east and central regions, receive advanced technology and develop its economy.

Second, on the guiding principles for developing the west, we must overcome one-sidedness and establish ideas governing the overall situation. The natural resources of the 11 western provinces are not the same, and their degrees of economic development are also very different, with each having its own advantages. And they must all have different developmental strategies for their rural economies. But in overall guiding principles, we must establish ideas for taking on the overall rural economic situation, and achieve the common development of agriculture, forests, animal husbandry, sideline occupations, fisheries, industry, commerce, construction, and transportation, along with political authority, legal systems and spiritual and cultural construction. At the same time, as Comrade [Hu] Yaobang has asked, we must strive to construct "two treasure houses," that is, the black treasure house beneath the ground and the green treasure house above the ground. On this foundation, we can develop the three great materials (nonferrous metals, chemical materials and construction materials) industries and also plant grass and trees and so develop animal husbandry, grew cash crops, engage in fresh and dried fruits, plus "grow one, raise two and process three." At present, the idea of taking responsibility for the overall situation has not yet been widely accepted or properly understood. If we one-sidedly emphasize a certain aspect, and neglect others, then a situation where all the individual aspects are not well coordinated will still be widespread. According to a survey of the model in one county, planting grass has not been organically combined with raising animals, nor developed in a coordinated manner. Among over 6,000 grass-planting households, 20.8 percent have no large livestock and 44.4 percent have no sheep. Some counties blindly pursue grass planting, resulting in animal husbandry not being able to keep up, ending up with 599 million mu of excess forage grass, enough to raise 200,000 head of sheep. Consequently, we must take overall responsibility for the situation, adjust the structure, go all out and develop in a balanced way. By no means must we plant grass and trees and neglect grain production, nor can we stress agricultural production and ignore rural enterprises. In this area, we have lessons from the past.

Third, have "dialogues between east and west," with the east and west cooperating, and so shrinking their differences. The west's economic development is backward, and it lacks funds and technology, but it is rich in natural resources. The east's technology is advanced, funds rather plentiful, and its economy is developed, but it lacks natural resources. And this is the basis for cooperation between east and west, and dialogue and cooperation between the two would have many advantages for developing the economies of both. However, I feel that the basic goal of east-west cooperation, or a major aim, is energetically to develop the western economy and raise its economic standards through this cooperation, reduce the differences between east and west, and so develop the whole national economy, just as when China set up special zones, developed coastal cities, and absorbed foreign funds, technology and talent, and hastened the development of the whole national economy, and so reduced the differences in economic levels between China and the developed nations. Because seen from an even longer perspective, if the west is unable of fully develop, it will inevitably restrict the development of the entire economy, and would also be disadvantageous to the true rapid development of the east. Most recently, the leading group of the State Council for agricultural construction in the "three West" region has made efforts in this area, and requested comrades from Zhejiang, Jiangsu, Shaanxi, Shanxi and Beijing to aid the "three wests" in curing poverty and becoming rich. According to statistics, in last year alone, the number of projects that that Zhejiang, Jiangsu and Beijing helped build or are now helping build in Gansu and Ningxia has reached 103. For example, 25 fishery technicians from Huzhou, Zhejiang, went to Ningxia to carry out pilot fresh-water fish cultivation projects and guidance work in fish cultivation technology, and in five months, three fish placement points and one water area of 425 mu have an average per-mu yield of 496 jin, which is equivalent to from 4-fold to 14-fold the original per-mu yield of that area. If we can energetically place fish and popularize this method, then the west's economy can quickly energize and the disparities between east and west will gradually shrink.

Fourth, further liberalize policy, smooth out various economic relationships and set up an effective mechanism to move the economic. At present, there are many problems in this area that urgently await solution. For example, the problem of policy towards intellectuals. The development and construction of the west will require specialized technical people in many fields, but at present, the trend in the movement of people is still expressed by the phrases "the spring waters of a river flow to the east," and "the peacock flies southeast." To change this contrary flow of people, we must conscientiously implement a policy towards intellectuals, and formulate a series of special policies geared toward the special circumstances of the west. That is, we must have a policy of "retaining talent," to keep in the west the talented people that are already there; we must also have a "talent recruitment" policy to recruit and bring in talented people from the east and central regions; and we must also have a "talent rearing" policy to improve the training of elemen tary and middle-school level talent, born and raised locally. In addition, just as we encourage the withdrawal of land from cultivation and returning it to forests, grasslands and animal husbandry, encourage the planting of grass and trees, and the development of animal husbandry, and encourage and support the development of rural enterprises, etc., we must also have a series of effective policies to guarantee these policies, and also, provided they are beneficial to a commodity economy, make these policies fill in the gaps to form a complete chain and create a network. In setting up a mechanism for moving the economy and maintaining a healthy situation for moving the economy, it is even more important to realize certain goals within a certain time frame.

Fifth, we must break up old ways and conventions and develop a rural commodity economy. The western region is remote, and it has been closed off for a long time and had a self-sufficient rural economy all along. Now, in developing the west, we must get rid of the old methods of developing a self-sufficient economy. Self-sufficient agriculture cannot supply more commodities, but can only solve the issue of food and clothing, and maintain the peasants' lives and simply reproduction. But a commodity economy must supply ever more commodities and is the basic measure for curing poverty and becoming rich. But speaking of the west as a whole, not only does it lack the experience, technology, and capacity for engaging in commodity production, but what it lacks most is the the very idea of improving commodity production. A narrow field of vision and slow reactions are very widespread. The habits, ideas, and style of production and living forms under a self-sufficient economics have deep-rooted effects which we can see everywhere. In the west, even the most basic requirements of daily life are produced in the east. Of course this is because the people of the west lack this kind of production technology. And one of the main reasons that they have lacked it for so long and have moved ahead very slowly is that western peasants commonly lack a commodity economy consciousness and see no way out, and so do not grasp opportunities for becoming rich. Consequently, in the process of developing the west's rural economy, we must make the vast numbers of peasants open up their fields of vision, and establish and raise a commodity economy consciousness suited to the new commodity economy situation.

Sixth is to develop human talent. We lack talent for developing the west, but there are some places were the talent they have does not stay. The reason is primarily because we have not solved work and living conditions for talented people, have not given enough attention to these people or used them enough, restricted their special strengths and abilities so that they have not been used fully, and so they are not content to work locally for long periods. At the same time, their concerns about the education and job opportunities for their children have not been properly resolved, added to which, their living conditions are quite difficult and their pay is very low. Consequently, we must created better working conditions for intellectuals and scientific and technical people, as well as improve their wages, raise their position and give them opportunities for creating great plans and taking more responsibility.

I feel that the true motive force in the rural economic development of the west for greeting the shift in the strategic center of national economic construction is the 240 million peasants. The focal point for developing talent should be the intellectual development of the countryside, and in raising the quality of the vast number of peasants, expanding the peasants' economic capabilities, and enabling them to adapt to the development of productive forces and to master the technology and skills of commodity production. Consequently, the development of talent is not only the training of a few (relative to the vast numbers of peasants) upper and middle level intellectuals, but even more important is to develop the intellect of the peasants. Adopt various methods and forms to train a large group of elementary and middle level people who are skilled, and who have certain technical specialties and managerial abilities, and create a new generation of peasants. This is the basic guarantee for developing the west, and particularly for developing the rural economy. To talk only of developing specialized talent, and ignore developing the intellect of the vast numbers of peasants, would make it very difficult to effectively develop rural productive forces. But if we mobilize the broad masses of peasants and have them join in concert with specialized talent, then we would have a tremendous force that no one could match. The peasants are the basic strength for developing the west and are a tremendous force waiting to be developed.

Developing the peasants' intellect lies first in the creation of an excitation mechanism, and in creating a social and economic environment that will enable the peasants to be able to give full play to their economic abilities. Second is to expand the economic ability of the peasants through developing rural education to raise the quality of the peasants. The development of rural education is a pressing and great task. To use only traditional methods in the current rural economic environment of the west would make it very difficult to get results. Because traditional methods alone have no way to overcome the contradiction between the very long cycle of traditional education and the pressing need of the countryside for knowledge and talented people. Moreover, if education and the development of rural productive forces are not interrelated and intimately connected, then the peasants, who pay great attention to reality, will not be get very excited about it.

In order to greet the shift in the strategic focus of the nation's national construction, we must first consider the development of rural productive forces, and so the starting point for rural education should be the unified development of education and economic development, and making education be geared to the reality of developing rural productive forces. Through education, we can enable the peasants to have an even deeper understanding of the new productive forces, develop a field of vision, renew ideas, improve technical skills, master capabilities and participate even more effectively in the whole process of developing rural productive forces.

Guided by these objectives, developmental methods for rural education will be: combining basic education with remedial education, continuing education, and staff education. At present, the peasants have already begun to have earnest feelings and necessary understanding, the peasants' demands for education are greater and greater, and the conditions for realizing the unity of rural education and economic development become riper with each day. And so developing rural education in order to improve the quality of the peasants and expanding the peasants' economic abilities, and so mobilize the development of the west's economy, have already become real and pressing tasks.

The west is a miraculous land. Developing the west is a great enterprise that will go far into the future and the development of the west's rural economy will certainly make a great contribution to this great enterprise.

12452
CSO: 4007/265

NATIONAL FORESTS IN NORTHEAST CHINA SERIOUSLY DEPLETED

Beijing JINGJIXUE ZHOUBAO in Chinese 9 Mar 86 pp 1, 2

[Article: "Serious Crisis Exists in Northeast National Forest Areas. Feng Baoxing [7458 1405 5281] of Jilin Province Economic and Technical Research Center Calls For Attention To Solve Problems"]

[Text] Following investigation and study, Feng Baoxing of the Jilin Provincial Economic and Technical Research Center has advised that a serious crisis exists in national forest areas of the northeast (in Heilongjiang, Jilin, and Nei Monggol), which is manifested principally in the following ways: (1) A serious 20 million cubic meter deficit in recent years in remaining forest resources. Total reserves have declined from the 4 billion cubic meters of the period immediately following liberation to 2.9 billion cubic meters. (2) A drastic decline has taken place in the reserves of harvestable mature forests that are a part of the total reserves. Harvestable mature timber amounts to only 200 million cubic meters of Jilin Province's reserves of 700 million cubic meters. At the present volume of felling, these harvestable reserves will last for only 15 years. Timber has been virtually completely exhausted in 5 of the 40 forestry bureaus in Heilongjiang Province. In 15 bureaus, the timber will last for from 10 to 15 years; in 13 bureaus, it will last for 20 years. (3) Overcutting of established forest centers and depletion of timber in areas that should have been established as forest centers but were not goes on at the same time. In forest centers in Jilin Province set up to provide 3.5 million cubic meters of timber annually, the actual amount being cut is 4.5 million cubic meters, and in places that should have been set up as forest centers, reserves are being lost at a rate of 400 [as published] cubic meters per year.

Feng Baoxing pointed out that continuation of this crisis in forestry will bring an ecological crisis in its wake. The Changbai Shan, Wanda Shan, and Greater and Lesser Xing'an ranges, which form a horse's hoof shaped environmental area in northeastern China, contain the headwaters of the northeastern region's major rivers, and the large tracts of forest that are found in these mountain areas play a role in regulating the regional climate, in conservation of water, in the prevention of erosion, and in blocking winds and stabilizing sands. They are an ecological screen for areas in which industry and agriculture are concentrated such as the Songliao Plain and the Songnen Plain as well as the Hulun Buir grasslands. It is in this environment that nearly 100 million people depend for their existence. As a result of the reduction in the forestland area and the tremendous decline in the forest cover rate, serious deterioration in the ecological environment has already taken place in the following ways:

(1) A drop in the amount of precipitation. Annual precipitation in Heilongjiang Province has dropped from the former 600 mm per year to 400 mm. (2) The variation in water depth between years of abundant water and scarce water is increasing year by year, intensifying damage from flooding and drought. (3) The area of soil and water runoff has increased, and the volume of silt carried by rivers has increased dramatically. This has brought about a drop in soil fertility and a contraction in the useful life of reservoirs and hydroelectric power stations.

In order to solve the foregoing problems, Feng Baoxing has proposed the following. First. with regard to forest production: (1) a hastening of the exploitation of over-age forests that are in a state of negative growth to turn large quantities of dying timber into wealth; (2) control within intended production capacity of the amount of felling in established forest centers; (3) an increase in the multiple utilization rate of the three kinds of leftovers. Second is the solution to the follow-on problem of forestry resources to be felled at the end of the present century, using human intervention to hasten growth of middle age forests. Third is the solution to the forestry resources problem: (1) Considering institution of a forest price system; (2) Institution of a policy in forestry enterprises of "using short suits to build up long suits, and using sideline occupations to nurture forestry," devoting major efforts to development of forestry-related farming (such as the growing of ginseng, the tuber of elevated gastrodia [Gastrodia elata], and wood fungus) and breeding of aquatic products for economic diversification; (3) Provision for some sales at negotiated prices as part of planned production norms; (4) Liberalization with regard to overage forests, using methods similar to compensation trade to gather together funds for the building of forest centers from timber-using areas or timber-using enterprises inside China to compensate for the production of timber.

9432
CSO:4007/378

AFFORESTATION IN GANSU, QINGHAI SURVEYED

Beijing LIAOWANG [OUTLOOK] in Chinese No 47, 25 Nov 85 pp 23-25

[Article by Zhao Yannian [6392 1693 1628] and Li Guosheng [2621 0248 0524]: "A Survey of the Grassland and Forest Situation in Gansu and Qinghai"]

[Text] Comrade Hu Yaobang raised the slogan "Plant grass and trees, develop animal husbandry, transform the landscape, and turn poverty into affluence" on his working inspection of Gansu, Qinghai, and Shaanxi in July and August of 1983. In the more than 2 years since that time, planting of grass and trees has developed rapidly in Gansu and Qinghai.

Just look at the following figures: In Qinghai over 560,000 mu were afforested in 1984, and over 390,000 more were afforested just this spring. Grass was planted in 1984 on 450,000 mu; in the first half of 1985 the figure exceeded 230,000 mu. In Gansu, afforestation in 1984 totalled 4.19 million mu and in the first half of 1985 alone to 3.45 million mu. Planting of grazing lands in 1984 totalled 5.86 million mu and in just the first half of 1985, 2.47 million mu.

In such arid and semiarid regions as Dingxi where ground cover has suffered serious damage, the increase in grasslands and forests has been manifest, and the natural landscape is already showing changes. In some ravines and on some peaks, loose gravel has given way to lush growths of tender sprouts of such irrigation-fed shrubs as ormosia grass, newly planted saplings, citrus trees ningtiao [2899 2742], and narrow-leaved oleaster. The more than 5 million mu of grazing grass planted last year in Gansu produced this year more than 2 billion jin of hay and has begun to play a role in alleviating the shortage problems associated with the "three feeds."

Stick to Suiting Measures to Local Conditions

In recent years, all areas of Gansu and Qinghai have remained steadfast in planting grasses and trees which are suited to concrete local conditions and characteristics, and have accumulated a wealth of experience. A presentation for such areas as Dingxi shows that rainfall in arid regions is at or below 300 mm per year. To plant nothing but grazing grass leads to difficulties; and primary emphasis should be placed on planting such strongly drought-resistant shrubs as citrus trees and white puncture-vine which can be used both for feed and for fuel--or otherwise to combine grasslands with shrubs. In desert or desertified localities, such drought resistant desert plants as cactus [5363 2761] and sacsaoul can be planted, placing the emphasis on shrubbery growth on manmade grazing lands growing beneath the shrubs. In semiarid regions with rainfall of 400 mm, such grasses as alfalfa and sweet clover which are easy to plant, along with such shrubs as citrus, red willow, and narrow-leaved oleaster, while full-sized trees are restricted to places where water content is higher, such as ravines and basins, oases, and shaded hillsides. Therefore, the emphasis in semiarid regions should be on grasses and shrubs supplemented with full-sized trees; or else on planting grasses and shrubs first, and only later adding trees to the combination. This will create conditions for trees which shelter shrubs which, in turn, shelter grasses. Over the last few years, one hopeful experience in some areas has been to plant narrow-leaved oleaster or grazing grasses beneath "little mature trees" which in due course fixes nitrogen for fertilizing larger trees and increases the quantity of growth overall.

The regions of southern Shaanxi and Gansu and of southeastern Qinghai comprise a chilly plateau at an altitude of about 3,000 meters. Plantings of perennial beans and grasses cannot completely solve the problem of survival through cold winters, and the favorable rainfall conditions should be fully utilized for planting. At the present time, steep hillside plots should be reforested with trees and shrubs or planted with perennial grasses. On less steep slopes, a portion can be turned over to perennials and the ratio of full-sized trees gradually increased. Presentations in southern Gansu and in Qinghai revealed that grass plantings in grazing districts should be combined with the establishment of [5430 1655 0243]. If grass is merely planted without any enclosure, it is difficult to protect. Just making enclosures without planting grasses leads to no improvement and is uneconomical. In these grazing regions, further problems such as moving, storage, processing, and feeding of livestock need to be addressed if the optimum in economic returns is to be achieved.

Both Gansu and Qinghai have regions which are floodplains and gullies with good conditions for high grain output and should not necessarily be turned over completely to grasslands. Rather, they should be bordered with or interspersed with Chinese creeper, alfalfa, and arrow-tongued [4628 5286] peas. Alternatively, the period of rain and warmth after grain harvest can be utilized to plant feed grasses and green manure. As far as tree-planting is concerned, not only should rapid-growing varieties be planted along borders and on barren lands, but orchards should be vigorously developed as well.

Avoid Emphasizing One Thing

Planting of trees and grassland is inextricably linked to the livestock industry. From what we now know, wherever grazing land and livestock are managed together, economic results are good and mass enthusiasm for planting grasses remains high. When they are not managed in tandem, it has an impact on that enthusiasm. In some cases, tasks are undertaken merely to fulfill the assignments which have come down from higher authorities or merely to make a few yuan off subsidies. Some towns in western Shaanxi counties have an ordinance to the effect that households which have not filled their quotas must pay a standard greening fee of 7 yuan for each mu. Although such incidents have just begun to crop up, they should be attended to.

How can mass enthusiasm for planting grasses be further mobilized? After talking to responsible comrades, town cadres, and householders, we have come to feel that the present method of allocating quotas and cash subsidies to all households should be changed to one in which support is given to single or joint households to open household pastures and forest camps. Another method would be to give one person the assignment and let him solicit help from others. Planting grass and trees should be linked to raising livestock and lead to integrated operations, mutual encouragement and development for all parties. At the same time, pre- and post-harvest services should be implemented so that good grasslands lead to superior livestock and thence to good selling prices. This will draw and provide incentives to more and more people to move from poverty toward affluence.

Last year, Gansu Province invested 100 million yuan in planting trees and grasses; this year that figure is to increase to 110 million. If the methods described above are utilized, the masses will be able to bring home a piece of that investment and recycle it. After several years of accumulation, this will amount to a considerable fund for developing grasslands, forests, and livestock and will come to play a significant role in long-term construction from here on out.

Pay Attention to the Nurture of Talent

Planting grasses and trees and raising livestock requires advanced science and technology and a large number of S&T personnel and management cadres. At the present time, there is a dearth of such personnel and scientific education is still very backward and inadequate for development. This is especially true for the work of creating grasslands, where the work force is extremely weak. Further work needs to be done to solve such problems as selecting and nursing varieties of grazing grasses, management of cultivation, utilization of processing, renewal and transformation of natural grasslands, the selection of grasses for various types of grasslands and organizing communities, and preventing diseases and infestation of grazing grasses. This will give the mass of households some practice for production. Reflecting on this situation, we suggest that current grassland research facilities and the grassland department of Gansu Agricultural College should provide the foundation and move forward to create conditions for the establishment of institutes to study the topic of grasslands and grasses. Certain ordinary middle schools can be turned into technical schools for the study of grasslands, forestry, and animal husbandry in a planned fashion. Regular schools should also teach knowledge about these subjects and affirmatively set up short instructional classes to gradually upgrade S&T standards concerning the planting of trees and grasses and animal husbandry.

The solution of the issues facing arid and semiarid regions is an important one for agriculture. China's west must struggle under correct leadership policies for several decades until overall change inevitably transpires. Gansu is arid in the north, wet in the south, and transitional in the central region. If the policies of planting grasses and trees and developing the livestock industry are maintained and rationally placed in that order of priority, and if a highly efficient system of production and ecology is put together, this will not only change the basic course of the province's features but may also establish and provide useful experience for arid and semiarid regions overall.

12303/12379
CSO: 4007/272

REDUCING PEASANTS' BURDEN URGED IN COMMENTARY

Hefei ANHUI RIBAO in Chinese 9 Oct 85 p 1

[Commentary: "When a Solution Is Agreed Upon, We Must Implement It"]

[Text] This newspaper recently has received letters from the peasant masses one after another; they are puzzled by and dissatisfied with their excessively heavy burden. The voice of the people should arouse the serious attention of all levels of the leading organs and of all comrades engaged in rural work.

Lightening the peasants' burden is a slogan frequently shouted by everyone, but the real situation is that the more it is "reduced" the greater and heavier it becomes. What is the reason for this? The answer must be found in the leading organs at all levels. After the 3d Plenum of the 11th CPC Central Committee, the issue of feeding and clothing the peasants has been fundamentally resolved, and a group of prosperous households have sprung up, but some leading organs have overestimated the extent of the peasants' prosperity at the present time and this is one reason for the irrational apportioning regarding the peasants. A second reason is that certain leading departments always stress that their work is important and by every means possible go to the grassroots, distribute personnel everywhere, and collect at all levels, so naturally per capita expenses increase rather than decrease. A third reason is that certain leaders enthusiastically join the tide, run up expenditures, and set up various enterprises in an unrealistic manner, all of which serve to "fleece" the peasants. In short, the peasants' burden is excessive, mainly as a result of the foregoing; of course the comrades at the grassroots level are responsible to a certain extent.

"The leaders establish the way things are done, and are within the law when applying it." None of the vague and general slogans are able to dispel the heavy burden on the peasants. The leading organs at all levels must come up with a feasible approach based on investigation and research, and implement it. The Fuyang and Chuxian prefectural party committees drew up the scope and various standards for retaining profits of the rural collectives. It is worthwhile for all localities to draw lessons from their approach. When these localities formulate the scope and standards for retaining profits in their respective regions, they must proceed from actual conditions and not seek uniformity. However, the overall principle of "setting limits" must be adhered to. One thing they must do is consider the rationality of the burden, and especially must they pay attention to those which appear rational but which in fact are additional burdens and thus should be resolutely gotten rid of; another thing is that they must consider how much the peasants can endure at the present time and provide a margin so they can continue to rest and build up strength.

Drawing up methods and measures is not the same as solving the problem because in the process there are obstacles which can turn a good approach into a mere scrap of paper, which is a lesson we have learned in many years of work in the countryside. We must pay attention to all levels, each level must take responsibility and implement measures until they have reached each household; by no means should we tolerate a perfunctory attitude of feigned compliance. At the same time, we should make known to the masses the "solution" set up by the leading organs, let each household know what its burden should and should not be, and how much it should and should not bear. We must educate the peasants to correctly handle the three relations, to enthusiastically turn over to the higher authorities a rational burden, while at the same time we also should provide protection and support for the peasants when they resist an irrational burden.

12513/13045
CSO: 4007/63

ANHUI

LEVELED FOOD PRICES, BETTER MARKET MANAGEMENT REPORTED

Hefei ANHUI RIBAO in Chinese 5 Jan 86 p 1

[Article by Huang Qijie [7806 1142 2638]: "Supply Up and Prices Level for Food Products in Anhui's Markets; 'Dual Management' Effected for Enlisting Sources of Goods and Managing Markets"]

[Text] Markets throughout Anhui have gone of affirmatively to marshall supplies of food products and have strengthened market management. Beginning in December of last year, supplies of such major food products as pork, eggs, aquatic products, and vegetables have increased while prices have remained steady.

The Hefei City inaugurated supply methods for pork beginning in December which combined "earmarking" and "categorization," setting a maximum price. Market prices for meat fell 4 to 11 percent. Aquatic product supply and sales sections brought in 1.2 million jin of fish for release on the Hefei market and enlisted specialized fisheries households in the suburban areas and three outlying counties to set up for sales in the city. Current prices for crucian, silver, and black carp are down an average of 10 to 15 percent. Bengbu County has established hookups with surburban food product stations and retail outlets and given subsidies to salesrooms amounting to 0.30 yuan per jin of pork sold. Over 50,000 jin are being sold daily, of which 60 percent is from state-run corporations. Selling prices have stabilized at the over the counter [0427 0669] price level. The municipal vegetable company now has 6.6 million jin of various vegetables in stock, up by 300,000 jin from last year. Moreover, supply of some major vegetables is being restricted. Wuhu City now has more than 13,000 tons of frozen meat and 7.68 million jin of vegetables in stock. More than 3,000 jin of eggs are marketed daily. In the Anqing market, the practice is to buy high and sell low, provide administrative subsidies, and supply specified volumes. The price of eggs in country fairs has fallen back from 0.21 yuan to around 0.16 yuan. Supplies of beef to Muslims total 1.5 jin per person per month at a price of 1.4 yuan. Tongling City's open market has bolstered supplies of duck eggs at a price of 1.35 yuan per jin. In Lai'an County, maximum prices have been set for major food products which are consistently lower than the [0427 0669] price.

All areas are stressing strengthening of market management. Huainan City has ordered that outlets set prices for a section of pork in accordance with quality and prohibits the practice of mixing pork of lesser quality with that in the higher-price section. Violators are fined 50 yuan for a first offense and suspended for 1 month. Pork from individual and state-run units must undergo a sanitary inspection. Pork without a sanitary inspection seal which finds its way to market will incur a fine of 10 yuan per head. Due to the fact that all areas have strengthened market management and improved supply practices, supplies of food products have increased, prices have held steady, and the public is pleased.

12303/9835
CSO: 4007/276

WATER CONSERVANCY PROJECTS DISCUSSED

Hefei ANHUI RIBAO in Chinese 4 Jan 86 p 1

[Article: "Water Conservancy Project Construction Gears Up Throughout Anhui; Production Conditions Improve, Assuring Abundant Farm Harvests"]

[Text] Water conservancy project construction is now gearing up all over Anhui. According to statistics from 31 December 1985, total labor force on these projects through the province was 5.76 million workers; and the work already completed adds up to movement of 11.37 million cubic meters of earth and stone, or 47 percent of the plan. Developments have been most rapid in the Chu and Su County regions. In Chu County, 76.2 percent of planned projects are already completed. Levees on the Chu He and Xiang He have been strengthened along their entire length in Jiao County. Planned movement of 1.4 million cubic meters of earth is already completed. In the Su County area, the priority in this winter's water conservancy has been upon the completing and coordinating irrigation facility restoration and antiwaterlogging and desedimentation work for surface water. Over 600,000 workers have been engaged in the work throughout the area. Dangshan County has already completed 82 percent of its planned work.

Comparing this winter's construction with last winter's, the following features stand out. First, planning is being carried through conscientiously and achieving real results is being emphasized. Second, has been a stress on the renovation and strengthening of existing projects and on the widening and extension of irrigation channels. Third, is the proliferation of mainstay projects and the high-quality of construction, with many projects holding to the strictest of standards. Fourth, is the widespread adoption of a personal responsibility system, with all levels of cadres lining up to accept assignments. Fifth, is an increase in organization and cooperation, with projects beginning to become profitable in the order in which they entered construction.

12303/9835
CSO: 4007/276

AQUATIC OUTPUT IN SIXTH, SEVENTH 5-YEAR PLANS COMPARED

Hefei ANHUI RIBAO in Chinese 17 Jan 86 p 1

[Article by Wu Zhongyi [0702 0112 5030], Wang Laixing [3769 0171 5281], and Wang Jianxun [3769 1696 8113]: "Aquatic Product Industry Developed Rapidly and Seafood Was in Abundance During Anhui's Sixth 5-Year Plan; Eight Production Bases and Four Markets for Fish To Be Established During Seventh 5-Year Plan"]

[Text] Under the leadership of the guiding principles of "liberalizing policies and enlivening the economy," during the Sixth 5-Year Plan, the province's aquatic product industry developed rapidly, and comparing various estimated major economic indicators for last year with those of 1980, all show broad growth. The total output for aquatic products could reach 165,100 tons, a 1.26-fold increase, and of this, cultivated product is 12,500 tons, a 1.58-fold increase. The total output value for aquatic products is 209.13 million yuan, an increase of over 112 million yuan.

The special characteristics of the development of aquatic production in various place during the Sixth 5-Year Plan, are as follows:

We set up various types of responsibility systems and motivated the production enthusiasm for vast numbers of farmers and fishermen. Last year, more than 1,300 rural fish farms around the province produced 65,000 tons of fish, or 39 percent of the total produced in the province. The number of farm households and specialized households engaged in raising fish reached 1.1 million, the water surface involved is 100 million mu, 45,000 tons of fish are produced, or 27 percent of the province's total yield, and the water surface involved in water paddy rearing of fish is 340,000 mu, where 4,500 tons of adult fish are raised.

We enhanced capital construction for fishery, and improved production conditions. During the Sixth 5-Year Plan, the province transformed 300,000 mu of ponds and dykes, and set up 100 suburban fish raising bases, 88 state commodity fish base fish markets, 8 fish markets jointly run by the three levels of commune, production brigade and production team, and developed 50,000 mu of ponds for rearing choice fish. Last year, fish farm jointly managed by the three levels produced 3,000 tons of fish, turned over 1,140 tons to the state and earned 920,000 yuan in profits.

We persisted in serving production with science and technology, improving the scientific standards of the masses in raising fish. Last year, the province held 519 training classes on raising fish, trained 36,000 persons, and spread the use of 480 million improved variety fish; 17 results of scientific research won awards at various levels.

We set up an open circulation system for aquatic products and enlivened the market. According to indications from an examination of last year's market, the amount of fish going on the market in Hefei, Bengbu, and Anqing all increased over previous years.

On 13 October the Anhui Provincial Aquatic Production Work Conference reported that during the Seventh 5-Year Plan, our aquatic production industry has prospects for major development, and that we will gradually set up eight large aquatic production bases and four large fish markets in order to satisfy the requirements of both urban and rural residents for aquatic products.

The eight major aquatic production areas will be: the Anqing comprehensive aquatic production base, the Chaohu specialty aquatic product export base, the Lu'an Sanhu reservoir and dike cultivation base, the Eastern Anhui river crab cultivation base, the Hefei fresh and live aquatic product base, the Xuancheng Nanyihu cultivation base, the Huangshan City-Taiping Hu aquatic cultivation base, and the Bengbu comprehensive aquatic product processing base. The four major fish markets will be in Hefei, Bengbu, Anqing, and Wuhu.

To complete this great task, at the conference Lieutenant Governor Meng Fulin asked that all areas carry forward the spirit of the foolish old man who moved mountains and struggle mightily; he said that devoting one's efforts to striving will inevitably succeed. We must actively improve production conditions, aim our main attacks on weak links and do a good job with service work. We must continue to perfect the economic responsibility system, intensify aquatic production instructional work, establish a system for the popularization of fishery science and technology, build facilities for the processing, storage and transport of aquatic products, develop a comprehensive enterprises combining fishery, industry and commerce and so enable Anhui's fishery to catch up to the most advanced standards of the nation.

12452
CSO: 4007/254

CONFERENCE ON IMPROVING FIELD MANAGEMENT REPORTED

Hefei ANHUI RIBAO in Chinese 11 Jan 86 p 1

[Article: "Strengthen Management of Fields To Achieve a Bumper Harvest of Mid-Season Crops"]

[Text] On the evening of 10 October, the provincial government convened a telephone conference. Lieutenant Governor Meng Fulin asked all places to conscientiously improve field management for mid-season crops, conquer the effects natural disasters, turn around the passive situation and strive to gain a bumper harvest in mid-season crops this year.

Lieutenant Governor Meng Fulin first analyzed the situation of this year's mid-season production, saying that due to more than 20 continuous days of cloudiness and rain during the fall last year, the sowing season for mid-season grain and rapeseed was postponed 15 to 20 days later than in normal years, and the area of late-sown crops was large. The seedling situation for wintering-over crops was not as good as past years. Some wheat did not tiller at all before wintering-over and some did not even put out sprouts; some rapeseed had only two or three large leaves, lacked resistance and were easily affected by frost damage and other damage. According to statistics, compared to the same period last year, type one wheat seedlings were reduced 20 percent, type two seedlings were reduced 9 percent and types three seedlings were expanded by about 29 percent; types one and two rapeseed seedlings were reduced about 10 percent, and type three seedlings were expanded about 10 percent. In sum, after wheat and rapeseed entered wintering over, the proportion of type three seedlings expanded greatly, and this has greatly increased the difficulty of achieving a bumper crop for this year's mid-season crops. All areas must give this a high degree of attention.

Lieutenant Governor Meng Fulin forcefully pointed out that at present an important task of rural work is to immediately mobilize the masses to get a firm handle on field management for mid-season crops. He said that mid-season crops hold an important position in our province's agriculture, that the area of summer grain constitutes over 35 percent of the total annual grain area, and that its yield is about 30 percent of the total grain yield; rapeseed constitutes over 70 percent of the annual oil-bearing crop area, and its yield is over 80 percent of the total annual yield for oil-bearing crops. The situation for mid-season crop production not only greatly affects the whole province's agricultural production, but also directly concerns whether or not the rural industrial structure will be able to adjust smoothly this year. Every year bumper harvests in mid-season crops have been a driving force. Consequently, if we wish to get a good handle at present on field management for mid-season crops, we must get a good handle on the key link of wresting a bumper agricultural harvest this year. All areas must do a conscientious investigation and analysis of the mid-season crop growth situation this year and study concrete methods for solving existing problems. Suit measures to local conditions and apply fertilizer on time. At present, we must spread the application of dry fertilizer, and after the Spring Festival, promptly carry out plowing under of green manure, and must also the take care of foliage dressing for mid- and late season wheat and rapeseed as soon as possible. At the same, we must pay close attention to clearing out ditches, draining away water and preparatory work for preventing insect and disease damage. We must conscientiously sum up the lessons of the effects of insect and disease damage on mid-season crops, improve predictions for insect situations, carry out prevention and control measures at appropriate times, and control damage.

Lieutenant Governor Meng Fulin said that harvest situation for mid-season crops concerns the issue of all agricultural production, and agriculture, supply and marketing, agricultural administration transportation and other departments must all conscientiously foster thinking of serving agriculture and serving farmers, and with all their heart and soul do a good job in all production service work. Agricultural departments must organize technical cadres, penetrate into the first line of production and improve technical leadership; means of production departments must get a firm hold on organizing and carrying out the supply of chemical fertilizer, agricultural chemicals and other materials used in agriculture, and ensure the needs of mid-season field management; the agricultural bank must actively organize some loans; support farmers with inadequate production funds; the method of buying on credit can also be adopted for materials used in agriculture, to ensure they do not miss the agricultural season; we must determine specialists to be responsible for the field management of poor areas and poor households and give emphatic support in the areas of funding, chemical fertilizer and agricultural chemicals.

Lieutenant Governor Meng Fulin finally stressed that for areas that still have no way to wrest out a bumper harvest for mid-season crops through objective effort, we must arrange year-long crop rotation as soon as possible, do a good job in adjustment work as we exchange good varieties, work hard to supplement crop failures with bumper harvests, and guarantee the year round stable increase of grain yields.

12452
CSO: 4007/254

'SPARK PLAN' IMPLEMENTATION REPORTED

Hefei ANHUI RIBAO in Chinese 25 Jan 86 p 4

[Article: "Let Sparks Become a Prairie Blaze: Anhui Puts into Effect Six 'Spark Plan' Projects"]

[Text] After approval by the State Council, "spark plans" organized by the State Science Commission were implemented which have spread to the entire nation over the course of the past year. This implementation gives a group of small and middle-sized enterprises, especially township and town enterprises, which have the potential for emulation and promotion, a "short, level, rapid" package S&T project (that is, one which has a short turnaround time for S&T commercialization, one which is adapted to their technical levels, and one which will show rapid economic returns) which links science, technology, and economics. Improvement in S&T levels for these small and middle-sized township and town enterprises and rural construction then becomes the basis for vigorous development of the rural economy.

Commission Chairman Song Jian [1345 0256] pointed out that "spark plans" have three concrete targets for the duration of the Seventh 5-Year Plan. The first is to give short-term training to 250,000 young rural intellectuals and grassroots-level cadres each year in one or two branches of technology adapted to the locality. A second is get central, provincial, and municipal research departments to develop 100 integrated technological facilities for rural use and provide the countryside with batch processing. A third is to assist in the establishment of 500 small, model-technology township and town enterprises equipped with a whole panoply of technology, management demonstrations, and quality control and manufacturing techniques.

Combining the requirements of the Commission's "short, level, rapid" program with Anhui's local situation, the Anhui Scientific Commission began implementation of six such projects last year: an integrated technical development operation for the artificial reproduction, nurture, and stocking in lakes of crab fry; technological development of down manufacture; technological development of soy-sauce production totally through fermentation; development of health products made from fuling; and laser optometry instruments. These projects were based upon major results in technical projects done during the Sixth 5-Year Plan. In addition, they helped open up development avenues for Anhui's aquatic fish, bird, and Chinese medicine resources.

While implementing the State Science Commission's new policy, the Anhui Commission has also most recently been enlisting energies rapidly to study and propose 100 technological development projects geared to the provinces small and middle-sized enterprises--especially those township and town enterprises with significant demonstrational and promotional value. After study and discussion in relevant areas, the commission formulated initial priorities for these projects: cultivation, processing, and freshness-preserving storage of aquatic products; technical development for feeding and comprehensive use of domestic animals; exploitative utilization of vegetable oils; technical development for beverages; processing of expensive medicinal materials and restorative foods; rural architectural technology; technical development for building materials and coordinated interiors; intensive processing and comprehensive utilization of foodstuffs; intensive processing and comprehensive utilization of cash crops; processing and comprehensive utilization of pelts; promotion and adaptation of new materials, etc. At the same time, the commission has arranged for 20 integrated technical facilities to meet the dire needs of township and town enterprise and have enlisted relevant departments to carry out batch processing. The equipment includes small-scale tea-leaf-processing machinery, small-scale-vacuum vegetable-dehydration equipment, small-scale equipment lines for beverage production, and farm cottage production machinery assemblies.

In order to develop knowledge among township and town enterprises and link them up with these "short, level, rapid" projects during the Seventh 5-Year Plan, the Anhui Commission is planning to establish 20 S&T training bases throughout the province with a yearly quota to train 10,000 high school graduates per year for township and town enterprises, giving them access to specific production technologyaand entrepreneurial and managerial knowledge, so that they can become technological mainstays for these enterprises.

12303/9835
CSO: 4007/276

ANHUI

AGRICULTURAL S&T SHOULD MEET FARM PRODUCTION NEEDS

Hefei ANHUI RIBAO in Chinese 25 Jan 86 p 3

[Commentary by Wu Liangneng [0702 5328 5174] and Han Xiancong [7281 0341 5115]: "Agricultural S&T Workers Should Be Responsive to Needs of Farm Production Restructuring"]

[Text] As restructuring takes place in the makeup of rural production and the rural economy is further deregulated and revitalized, the establishment of a robust and sensibly constituted force of agricultural S&T workers and development of timely and efficient technical services and technical information has become an extremely urgent undertaking.

Since the 3rd Plenum of the 11th CPC Central Committee, Anhui's agricultural S&T force has developed and improved in size and quality. But this is still not enough when measured against the development of the rural economy. From the most recent surveys, three major issues concerning this force still await resolution.

1. Inadequate Numbers and Weakness at the Grassroots Level: In northern Anhui for example, which had 38.91 million mu of tilled land and a population of more than 21 million farmers at the end of 1984, there were a mere 2,585 technical people in the system for promotion of farm techniques—meaning each one to provide technical services to more than 15,000 mu. The crop-protection station in one Chaohu Prefecture county has seven agronomy cadres to provide the more than 600,000 mu of rice paddies and 200,000 mu of dry-land grains of various sorts with pestilence- and vermin-prevention services. When the vermin and pestilence season arrives, these workers must make tradeoffs; and this results in losses.

2. Senseless Structures and a Lack of Agricultural Talents: The first shortage is of talented crop cultivators. Estimates from the end of 1983 show that specialists in aquatic cultivation amounted to 5.62 percent of the province's agronomy workers. A few college and middle-school graduates have been added in the past 2 years; but this is far from meeting the needs of aquatic product development. Animal-disease inspections and immunizations are also a weak area at this time. A second shortage is in specialists in farm sideline processing and storage. A third shortage is in management specialists.

3. An Unstable Work Force, and Erosion as Technical Talents Leave the Field: In the past few years, there have been inadequate numbers of farm S&T specialists. Specialists have also been leaving the field. In Fuyang Prefecture, for instance, one county has lost more than 40 agricultural cadres at the assistant level or higher since 1983--one-half the total at those levels. From 1983 to the present, this prefecture has seen over 30 agronomists and veterinary doctors leave the farm population. The impact this has on technical work is great. When assignments are going out, the situation is always like this: The younger graduates do not dare take on assignments for lack of experience; the older technical personnel are unwilling to take on responsibilities for health and other reasons, and the most able middle-aged mainstays who would be glad to shoulder responsibility on their own are leaving the farm and thus do not.

Overall, continued development of a strong work force of agricultural S&T specialists while restructuring rural production is not only necessary, but urgent. From the standpoint of Anhui, stress should be focused on the following aspects of the task:

1. Adopt Versatile Measures To Expand Avenues for Talent: Rural economic development requires talents of many kinds and many levels of proficiency. Single-minded reliance on specialized state institutes to nurture these talents is inadequate. We should have a method which walks on two legs. At the same time as the state institutes are cultivating their quota of talents, we should vigorously develop rural intellectual resources. Statistics show that Anhui's countryside has 5 million educated youth in high and junior high schools. Diverse measures should be adopted to provide directed technical training to these educated youth returning to their villages. The aquatic products section of the Xuancheng administrative office and the agricultural section of the Chaohu administrative office have this year conducted a trial which has gone a long way toward promoting agricultural and fishery techniques.

2. Draft Sensible plans for Restructuring Production Arrangements: During the Seventh Five-Year Plan, restructuring of rural production will develop both intensively and extensively. This will require the responsive restructuring of the makeup of agriculture to nurture agricultural S&T specialists. Therefore, education departments should draft middle- and long-range plans for restructuring specialized establishments. In the short term, they should set up specialties in such urgently needed areas of agriculture as processing of farm and livestock products, transportation, and warehousing. At the same time, they should increase specialization of subjects that lack personnel such as agricultural financial accounting and rural business management. Traditional farming should be transformed in, for example, agronomy, crop protection, veterinary medicine, and agronomical specialties to include management of the farm economy, knowledge of computers, and cultivation of orchards and truck crops. Plant-protection specialties should include chemical pesticides and veterinary knowledge. Animal husbandry should include sanitary inspections, assay of feeds, and cultivation of cash crops.

3. Expand Technical Training and Renew the Composition of Knowledge: (1) Middle-school and college graduates of the fifties and sixties should be given the opportunity to refresh their knowledge through such methods as short-term training sessions, technical symposia, and fixed self-study terms. (2) Middle-aged and younger professional technical personnel should be allotted time in planned groups to take classes or to study and do surveys outside the organization to open up their perspectives and supplement them with new knowledge.

4. Further Implement Policies To Deal with Intellectuals: First of all, the various directives raised by the central leadership prior to the 13th National CPC Congress on complete implementation of the work on policies covering intellectuals should be faithfully effected; and those problems which still have not been implemented among agricultural technical personnel--especially with regard to formulating special policies, such as floating wages for such personnel--should be conscientiously resolved. Second, living difficulties in the villages for these workers should be realistically dealt with, along with problems in sending their children to schools or to find employment.

5. Reform S&T Management systems: Under current conditions, this means integrating departments and localities, implementing multilevel management, and expanding appropriately the personnel perogatives of farm departments. In the future, government or other units in actual need to requisition agricultural S&T personnel should, depending on the situation, first seek the opinion of the agricultural department in an orderly fashion, so as to avoid creating an unfavorable impact on agricultural technology work.

12303/9835
CSO: 4007/276

ANHUI

ISSUES IN SWINE PROCUREMENT ADDRESSED

Hefei ANHUI RIBAO in Chinese 18 Apr 86 p 3

[Article by Yu Lei [0060 7191]: "On the Issue of Instituting Contract Purchase Quotas For Live Hog Procurement"]

[Text] In 1985 Anhui Province abolished assigned procurement of live hogs, instituting contract purchase quotas instead. During the past year, a marked resurgence has taken place in the raising of live hogs in the province's rural villages; the pork shortages in town and village markets has moderated; prices are basically stable; and the people's livelihood has improved further.

We must realize, nevertheless, that the change of assigned live hog procurement to contract purchase quotas is a major reform. Some places lacked a proper appreciation of the importance of this reform. As a result, they did not devote sufficient attention to it nor did they carry it out vigorously. Some problems sill remain with instituting live hog contract purchase quotas. During 1985, live hog contract purchase quotas for the whole province were for only 1.6 million head. This is a long way from making the most of the guiding function of state-owned businesses, from protecting the personal interests of hog raising households, and from doing a good job of planning market supplies of pork. Unless firm action is taken at once to correct this situation, the enthusiasm of hog raising households will certainly be dampened.

The change from assigned procurement to contract purchase quotas for live hogs represents a change from command style planning to guidance style planning and from administrative methods of direct control to the use of economic and legal methods of indirect control. Even though the methods and the means are different, the goal remains better development of the rural commodity economy and assuring that needs of town and village people's livelihoods are met. If one supposes that a liberalization of hog procurement means there is no need for plans, that matters can be allowed to take their own course, and that there is no need to ask the whys or wherefores, then that will pose definite difficulties and place obstacles in the way of our carrying out of plans and fulfillment of quotas. During 1985 some jurisdictions did not conscientiously carry out live hog contract procurement, with the result that procurement was unplanned. During peak seasons, hog raising households rushed to sell their hogs. The pressure on purchasing units was too great, making it difficult for peasants to sell their hogs. During the slack season when there were few hogs offered for sale, procurement departments and abattoirs were hard put to find hogs to offer for sale. Consequently, the fluctuations in the market price of pork were too great. In addition, because of the failure to institute programs for feeding hogs, for epidemic disease prevention, for procurement, and for standards, hog raising peasant households felt that hog raising was risky and no profit could be made from it. Their enthusiasm for raising hogs declined, impairing development of hog raising. State financial revenues also suffered as large numbers of hogs that were removed from inventory fell into the hands of commercial outfits, both those licensed and those unlicensed to slaughter. Furthermore, some jurisdictions did not police tax collections very strictly and a large amount of revenue sources slipped away. In 1985, Huaiyuan County removed 117,000 hogs from inventory, but state-owned businesses purchased only 35,000 head. This single instance denied the county treasury several hundred thousand yuan in revenue.

Genuinely good performance in contract procurement quotas for live hogs requires attention to the solution of the following several problems:

First, procurement quota contracts have to be carried out down to the household level. In 1985, some places only assigned procurement quota figures level by level to districts and villages; they did not really assign them to peasant households. Now, under direction of local governments, vocational departments must spare no effort to contract responsibility tract by tract and sign contracts with each and every peasant household. The contract should explicitly state the time when the hogs are to be supplied and should be secured by certain economic measures in order to maintain the seriousness of the contract.

Second, a price should be set for the contract procurement. A contract without a price is an incomplete contract. It is neither able to guarantee the peasant household's ordinary interests, not is it able to guarantee the legal rights of the procurement unit. Since changes are fairly great in pork market supply and demand, procurement contracts may set a price spread on the basis of the local situation. During the slack season when few hogs are available, the price may rise; during the peak season when there are many hogs, the price may fall. However, the hog raising household has to be assured of receiving a minimum protected price.

Third, a supply of fodder for feeding the hogs has to be assured. Whether or not agreements to provide fodder are honored has a bearing on whether the people will have confidence in the Party's policies. In the past, usually a fodder coupon was issued to the peasant household after selling each hog, but fodder was not supplied at once, and some jurisdictions could not insure supply. Nowadays, some jurisdictions have adopted a method whereby once a procurement contract has been signed, the hog raising household may buy fodder in advance upon presentation of the procurement contract and be assured of a source of fodder. This has been very much welcomed by the peasants.

Fourth is a conscientious job of epidemic prevention and treatment of disease, insuring the honoring of procurement contracts. During 1985, Zhoukou Village in Meiqiao Township, Huaiyuan County instituted the contracting of epidemic prevention. Only four out of 646 hogs died, and this included two hogs owned by a peasant household that did not want to contract epidemic prevention. Practice has shown that contracting of epidemic prevention is a genuinely feasible measure for preventing hog diseases, and all jurisdictions should spread the practice as their circumstances dictate.

The whole year's work depends on a good start in the spring. In order to insure an increase in the amount of fodder available for the feeding of hogs in 1986 and to insure that the people in towns and villages have enough pork, all jurisdiction should make sure to carry out contract procurement right down to the individual household level.

9432
CSO: 4007/396

INVESTMENT IN DEVELOPMENT OF XINJIANG GRAZING LANDS

Hefei ANHUI RIBAO in Chinese 5 Jan 86 p 1

[Article: "Anhui Is Investing in the Development of Xinjiang Grazing Land; Xinjiang Will Make Yearly Payments in Wool"]

[Text] Based on information from the ECONOMIC REFERENCE, Xinjiang Uygur Autonomous Region has recently signed a contract with Anhui Province. Anhui will supply 8 million yuan to Xinjiang and help to develop grazing land and livestock production. Xinjiang will make yearly payments in wool.

This contract specifies that Anhui will provide 5 million yuan to Gongliu County and 3 million yuan to Fangcao Lake farm. Within an area of several hundred thousand mu of grazing land, Anhui will help them with irrigation, improvement of grazing land, and construction of facilities for livestock production. In this way livestock production will be accelerated. The county and the farm will use the wool produced to make yearly payments.

In recent years the wool and woolen textile industries have developed very rapidly in many areas of China. Shortages of wool have increased, but the potential of the livestock industry in several large livestock-producing areas has not been fully realized.

Anhui's investment will help Xinjiang to develop its grazing land and establishes a long-term stable and reliable base for industrial raw material in Xinjiang. (They also plan to expand the size of the investment and coordination in the future.) In this way the development of the wool and woolen textile industries in Anhui will have a stable foundation. As far as Xinjiang is concerned, it has provided the resources required for livestock production. The development of livestock production will be accelerated, and the living standard in the region will improve.

Information provided by the grazing land administrator in the livestock section of the autonomous region indicates that Xinjiang's wool production would increase greatly if Xinjiang could obtain additional funds from other provinces to improve half of the existing 600 million mu of grazing land. Three hundred million mu of good grazing land can support 300 million sheep.

13015/9435
CSO: 4007/269

ANHUI

BRIEFS

SILK OUTPUT GROWTH REPORTED--During the Sixth 5-Year Plan, Anhui's silkworm and mulberry production have achieved pleasing results. Last year, the province's total silkworm cocoon output reached 171,000 dan, a growth of more than 186.9 percent over 1978. The yield of cocoons per mu of mulberry rose from 18.5 kilograms in 1983 to 25.5 kilograms. The main reasons for this growth in Anhui's mulberry and silkworm cocoon production during the Sixth 5-Year Plan are as follows. First is the liberalization policy and the implementation of the responsibility system in mulberry fields; second is that concerned departments made concerted efforts to work together, giving active support in technology, finance and materials, and did good work in pre-, during, and post-production service work; and third is they have adjusted the distribution of silkworm cocoon and mulberry production, and improved capital construction for silkworm cocoons and mulberry. In the past few years, in accordance with the principle of suiting measures to local conditions and concentrating appropriately, and in line with consolidating, improving and actively developing the silkworm districts of western and southern Anhui, they have actively and steadily developed the hilly silkworm districts in the Chang Jiang-Huai He region, restored development in the Huaibei silkworm district, and paid close attention to the rational distribution of silkworm cocoon and mulberry production, making preliminary changes in the scattered, dispersed situation of cultivating mulberry and raising silkworm cocoons of the past. At present, the area of mulberry fields in the western and southern silkworm districts is about 80 percent of the province's total mulberry field area, and silkworm cocoon production is about 87 percent, creating a regional advantage for silkworm cocoon production. [Text] [Hefei ANHUI RIBAO in Chinese 8 Jan 86 p 3] 12452

CSO: 4007/254

VEGETABLE PRODUCTION IN SUBURBS REPORTED UP

Beijing BEIJING RIBAO in Chinese 24 Dec 85 p 1

[Article by Wang Yufang [3769 3768 5364]]

[Text] In order to allow the people of both city and countryside to eat fresh vegetables in the winter, farmers in the close-in suburbs are actively developing protected production and increasing market supplies.

According to incomplete statistics of concerned departments at the beginning of December, the protected areas in Fengtai, Chaoyang, Haidian, Shihjingshan, and the state farm system alone reached 27,700 mu, a increase in area over last year. This year the protected area makes up 15 percent of the total vegetable field area. Since winter began, fresh vegetables from the protected land, such as celery and rapeseed, have already continuously gone on the market, and by March of next year, the amount on sale could reach 72 million jin, a considerable increase over the same period in the first year of protected production.

There have been changes in the composition of the food eaten by people, along with the continual improvement in their standard of living, and in particular, the demand for fresh vegetables in winter has grown greater and greater. In order to develop protected production and increase the supply of fresh winter vegetables, the municipal government and concerned departments are planning for winter vegetable production while getting a good handle on autumn production, and they have formulated relevant policies in line with the ideological concerns of vegetable growing farmers, and have also explained their intentions to vegetable growing farmers, and so motivated their enthusiasm, and promoted the development of protected production. Last year, Fengtai District's protected production area was 5,860 mu, the largest protected production area for winter vegetables in the close-in suburbs. This year, they have continued to give full play to the advantages of this old vegetable growing area, exploiting its potential, fully utilizing various facilities and using every means to increase the protected area. Even though there are various types of contracts, some vegetable growing farmers plant a lot and report little, and they have also already carried out protected production on over 8,500 mu, more than 50 percent larger than the area last year, and it now constitutes about one-third of the protected area in the close-in suburbs.

Vegetable farmers pay heed to and study the vegetable market and produce in accordance with demand. In Chaoyang District, where the foundation for winter vegetable production is rather poor, they are actively developing protected production and have now already carried it out in 5,000 mu. According to a survey of some specialized vegetable farmers, there is still a trend for continuing protected production, and they estimate that they will increase the area by 1,450 mu. On a foundation of 4,500 mu of protected area already implemented, the state farm bureau system is going to further increase small and medium-size shed production, and the area could reach 1,600 mu, and it will supply the city with a lot of leafy vegetables. In the past, the utilization ratio of large sheds was generally about 60 percent, but this year vegetable farmers have energetically striven to raise it to about 80 percent, and in this way, the 9,000 mu of large sheds in the close-in suburbs can increase cultivated area by 1, 200 mu. In order to satisfy the demands of the city's people for various varieties, vegetable farmers are going all out to plant more celery, garlic chives, cucumber, tomatoes and various leafy vegetables that the people like.

The amount of celery supplied this winter and spring could be 10 million jin more than last year, and the amount of garlic chives going on the market between New Year's day and the Spring Festival will be double that of last year.

12452
CSO: 4007/253

FUJIAN

GRAIN PROBLEMS, SOLUTIONS DISCUSSED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 1, Jan 86 pp 21-24

[Article by Chen Feitian [7115 7378 1131], Fujian Rural Development Research Center: "Grain Problems and Solutions in Fujian"]

[Text] Fujian is a grain-deficient province: grain problems limit the speed and scale of economic growth and of readjustments in rural industrial composition. How to resolve grain problems is our most crucial issue of common concern. Many comrades have advanced different views of this matter, and it has provoked quite widespread and intense controversy. There are three major ideas espoused: the first is the argument for "grain self-sufficiency"; the second is the argument to "cast off the burden of grain self-sufficiency"; and the third is the argument to "stand essentially on our own in Fujian, but to suitably expand transfers from outside."

As for "grain self-sufficiency," there is very little possibility that it can be attained, and it presents many disadvantages. In the 35 years since the founding of the People's Republic of China Fujian has always sought to gradually attain grain self-sufficiency. But historical facts tell us that not only can we not attain self-sufficiency, but the size of our grain deficiency grows ever larger. On the surface we see that there have been 6 years of net outward grain movement from Fujian, and there have been 12 years in which purchases have exceeded sales. But in reality this was brought about by decreasing the level of essential peasant grain rations; it was a sham purporting to show that we were more than self-sufficient. Fujian has a large population and scarce arable land: right now per capita ownership is a mere 0.73 mu. In the wake of an increasing population and constantly expanding capital construction and nonagricultural land use, it is projected that by the year 2000 our total population will reach more than 32 million and arable land will be under 0.60 mu per capita. Figured at 800 jin per capita, we will then need 25.6 billion jin of grain. If the unit grain yield rises from the current 562 jin to 800 jin we will still need to sow 32 million mu of grain: 1.75 million mu more than the area actually sown in 1984. This idea and practice will inevitably affect the readjustment of rural industrial composition and the development of natural and economic advantages.

Overemphasis on "complete grain self-sufficiency" can only lead us to follow and get stuck on the same old disastrous road of "grain as the main policy." This would be harmful.

As for "casting off the burden of grain self-sufficiency," this is also inappropriate. First of all, this formulation easily gives people the wrong impression so that they downplay the major fundamental role of grain, slack off on grain production, and put grain production at odds witn diversified economic development. Second, the core of this "cast off" argument is that we should rely on a large volume of imports (including transfers in from outside the province) to resolve Fujian's grain problems. This idea is seriously out of touch with the actual situation in Fujian and poses a great danger for the following reasons: 1. Fujian's relatively weak economic base and poorly developed transportation have a major impact on the inward movement of goods and materials important to the national economy and people's livelihood. In addition to grain, this includes coal, petroleum, phosphate rock, chemical fertilizer, iron and steel, and so forth. If we further expand transfers of grain from outside the province, the load will be too much for the Yingtan-Xiamen Railway line; if we expand foreign imports, port loading and unloading capacity will be unequal to the task. 2. Volume imports and transfers of grain into Fujian present too great a financial load: transfering 100 million jin of grain means a burden of 11 million yuan on public finances. If we import grain from abroad we face the problem of foreign exchange payments. 3. Imported grain is primarily wheat, a variety which does not suit us, and the masses are unaccustomed to it. In addition, if we increase the ratio of wheat consumption we will inevitably run into two problems: first, we will have wheat storage, processing, and marketing problems; second, an increase in people's cash expenditures will ultimately affect wage levels. 4. Grain is a strategic material: imperialism frequently employs grain as a strategic weapon to exert various pressures on importing nations. This is particularly so now, when the world grain market is extraordinarily complex and conflicts are extremely intense. One superpower possesses a vast amount of grain and nearly monopolizes the world grain market; another superpower is seriously short of grain and rushes to purchase grain in volume; and the populations of certain third world countries are skyrocketing so that their grain shortages grow worse every day. The contradiction between supply and demand for grain in the world will grow more and more intense.

The author believes that to solve Fujian's grain problems we must stand essentially on our own within the province and emphasize self-reliance, but we must suitably expand supplementary transfers in from outside. What kind of concept is this, to stand essentially on our own in Fujian? It means to rely on Fujian itself to take care of the grain ration, seed grain, grain stores, and basic feed grain; while additional feed grain, grain for industrial and commercial use, and foreign trade grain can be made up through gradual expansion of transfers in from outside. Specifically, of Fujian's entire grain requirement, 80 percent should be satisfied by the province itself through expanded grain production and extensive exploitation of new food resources, and 20 percent should be satisfied through cooperation with other provinces and through imports. This means that by the end of the century we will need to transfer in approximately 4 to 5 billion jin of grain per year.

In the near future we will basically maintain or top the existing grain transfer level, but with improving transportation we will suitably increase some transfers of grain into Fujian. The advantages of this method are as follows: 1. Because we will stand essentially on our own in Fujian, the fundamental grain needs of the people and the national economy will be guaranteed. In case the international situation deteriorates, the world grain market tightens up, or transportation channels become blocked, we will not have to passively accept the situation because of our inability to transfer in grain. 2. We will be able to make reasonable arrangements in the proportional relationship between grain and cash crops, move to suit measures to local conditions, and accomplish rational distribution. This will allow grain and cash crops to develop in harmony and will promote simultaneous advances in agriculture, forestry, animal husbandry, sidelines, and fishery. 3. We will be able to maintain significant resilience: when it is advantageous to import grain, given that transportation is assured, we can grow fewer grain crops and grow more of certain cash crops that confer prominent advantages. The reverse is also true. 4. We can make full use of the world grain market: we can export certain top-quality paddy and processed grain products and import certain low-priced miscellaneous food grains and feed, we can achieve an import-export economy, and we can stimulate foreign grain trade. In short, grain problems affect national stability and overall national economic growth, and must not be treated lightly.

The way to resolve Fujian's grain problems is, on the one hand, to stand essentially on our own in Fujian, continue to stress grain production, concentrate our efforts on increasing unit yields, and strive to make some improvement in overall grain output; and, on the other hand, to actively bring about the conditions for expanding inward grain transfers. In terms of policies and steps to be taken, we must accomplish the following points:

I. We must readjust the grain pricing system and preserve enthusiasm among grain farmers. The basic reason for the current decline in enthusiasm for grain cultivation is that income therefrom is low. Grain prices currently in effect reflect neither value nor the supply and demand relationship. In reality, the proportional grain procurement price now in effect is still a composite average price taken from the state monopoly purchase price and the price of extra-monopoly grain, though pricing has been opened up on other agricultural products one after another. This makes for an even greater disparity in price ratios between grain, which was already priced on the low side, and aquatic products, forestry products, and other cash-crop goods.

Simultaneously, due to the rising price of material used in agricultural production, cash earnings from grain cultivation are growing smaller and smaller. A typical survey, conducted in August of 1985 by the Fujian Agricultural Office, investigated Longhai and Nanjing Counties and found that net per-mu income from grain falls far short of that earned from other agricultural crops: wheat earns 14 yuan, paddy earns 138 yuan, peanuts earn 106 yuan, sugarcane earns 244 yuan, melons earn 293 yuan, lotus seed earns 380 yuan, bananas earn 1,196 yuan, and vegetables earn as much as 2,937 yuan per mu. There are two ways of resolving this problem: the first is to open up grain pricing and allow the law of value to exercise its regulatory function, thereby improving enthusiasm among grain farmers; the second is to have the state and collectives provide grain farmers with the necessary subsidies, thus increasing the latter's cash earnings. Seeing that large-scale increases in grain prices affect the overall state of the national economy, in the near future we should rely on public subsidies to arouse enthusiasm among grain farmers. Moreover, we should provide support in credit, materials, and other areas to resolve grain farmers' practical problems. However, as we gradually get deeper into national economic reform we should progressively open up grain pricing so that farmers engaged in grain production can also earn a reasonable income and so that stable grain expansion can be assured.

II. Our focus in expanding grain production should be on improving unit yields. As our reform of rural industrial composition develops in depth and as construction in small cities and towns expands rapidly, we inevitably must also gradually reduce certain grain growing areas. Therefore, in future grain production development Fujian must take the path toward gradual reduction in grain growing area, but active improvement in unit yields. We seek to achieve a much more rapid rate of increase in unit grain yields than our rate of decrease in grain growing area, so that a sustained growth trend will be maintained in gross grain yield. Specifically, by 1990 grain growing area should be maintained at 28 million mu, unit yield should measure 643 jin, and gross output should total 18 billion jin; by the year 2000 grain growing area can be held at 26.5 million mu, unit yield may measure 790 jin, and gross output may total 21 billion jin. Naturally this will be extraordinarily difficult, because in Fujian there is very little cultivated grain land on which stable yields can be maintained despite drought or excessive rain, very low resistance to natural disasters, a great deal of land that produces low or moderate yields, and a very obvious instability and imbalance in grain production. However, precisely because we have a lot of land that produces low or moderate yields, and because existing unit yield levels are low, Fujian has enormous potential for improving unit yields. In the last 2 years Fujian began the key task of joint cooperation on low-yield and moderate-yield land, and our experience verifies that it is possible to transform such land to increase yield by 200 jin per mu.

III. In readjusting grain and cash crop distributions we should observe the principle of adopting measures suited to local conditions. On cultivated land that is unsuited to grain growing, but that is suitable for developing forestry, animal husbandry, or fishery industries, we must adopt a policy of "retreat" to withdraw resolutely from cultivation and restore forests, orchards, livestock, and aquatic life. In commodity grain producing areas suited to grain cultivation, especially commodity grain base counties, we must adopt a policy of "stability": we must stabilize grain growing area and work hard to improve unit yields. On cultivated land unsuited to grain growing but suitable for planting cash crops we must adopt a policy of "change" and resolutely switch to cash crop cultivation. In regions suited both to grain growing and to cash crop cultivation, to determine which to plant we must proceed with a viewpoint that integrates overall need with market demand. Specifically with respect to the Xiamen Special Economic Zone, the open city of Fuzhou and its environs, and the Xiamen-Tongan-Quanzhou triangle, we should adopt more flexible policies and more effective measures to expand transfers of grain into Fujian. Given that the balance of grain supply and demand is assured, we should permit these regions to constrict their grain growing areas significantly and actively expand cultivation of vegetables, flowers and plants, and certain competitive cash crops, all of which are in demand on the domestic and international market and bring high cash returns. They should fully exploit their natural and social economic advantages and establish a new industrial structure composed of trade, industry, and agriculture.

IV. We must conscientiously intensify construction of commodity grain base counties. There are now 21 commodity grain base counties in Fujian that, in addition to supplying commodity grain for themselves, also provide the province with 800 to 900 million jin of commodity grain. In pace with the open door policy and the development of productive regionalization, specialization, and socialization in Fuzhou and the Xiamen-Tongan-Quanzhou triangle, we should make corresponding adjustments in existing commodity grain base counties. We should abolish the status of commodity grain base county in open Changle, Longhai, and Tongpu Counties, and promote the establishment of a "trade-industry-agriculture" production structure in those places. At the same time, we should actively develop counties that have fairly good grain production bases, a certain productive potential, and a relatively large quantity of commodity grain, and make them new commodity grain base counties. Right now we provide too little support for commodity grain base counties and some of the economic policies now in effect are disadvantageous to production development in commodity grain bases. In the future our major means of expanding grain production should be through intensified commodity grain base construction.

To successfully construct commodity grain bases the state must first earmark a certain investment to be focused on the project, particularly in capital construction on farmland. We must achieve multipurpose uses for mountains, waterways, farmland, forests, roads, and villages, and we must transform low- and moderate-yield land, improve production conditions, and raise unit yields. Second, we must employ modern industry to equip agriculture in base counties, and we must opt to develop agricultural mechanization and rural electrification. Third, we must send a significant number of skilled agricultural scientists and technicians to base counties and use advanced scientific, technological, and management methods to expand grain production. Fourth, we must support industrial construction in base counties, particularly construction of grain processing industries, and organize them into joint enterprises that merge agriculture, industry, and commerce into an organic whole. Fifth, to meet production and living requirements among resident farmers, we must give grain base counties priority access to high-quality chemical fertilizers, other production goods and materials, and scarce, widely sought industrial products. Sixth, we must stimulate commodity circulation and resolve "grain-selling problems."

V. We must actively improve transportation and gradually expand grain transfers into Fujian. Transportation shortages are the major factor limiting solutions to Fujian's grain problems. Although Fujian is a grain-poor province, nevertheless many townships and villages have had "grain-selling problems." The state can provide Fujian with grain assistance, but because we have limited transport capacity it is difficult to move the grain into the province. Therefore, we must adopt effective measures and work hard to solve our transportation shortages. We must adopt methods that unite the state, collectives, and individuals; domestic and outside funds; and waterways, land routes, and airways to develop multilevel, multichannel, multifarious types of transportation. In particular we must energetically expand ocean shipping and inland water transport and simultaneously develop large, medium, and small ships. Coastal prefectures and cities must establish their own ocean shipping fleets. We must vigorously promote the growth of people-to-people transportation, encourage the masses to go in for nongovernment cargo vehicles and fleets in a big way, and urge peasants to use their own funds or pool funds to build bridges and port docks.

At the same time as they actively improve transportation, open coastal counties and cities from Fuzhou to Dongshan should, based on needs and possibilities, gradually expand inward grain transfers and work hard to enlarge growing areas devoted to agricultural and sideline products in demand on the international market. So doing, they will progressively establish an industrial structure composed of trade, industry, and agriculture. Our principle should be that the pace of readjustments in planting composition should be keyed to the amount of grain it is possible to transfer into Fujian. Cash crop development must be balanced with grain production, procurement, transport, and sales, and readjustment of industrial composition must proceed in step with resolution of grain problems. We must launch more multichannel, multilevel grain farming operations involving the state, collectives, and individuals together. We must support farmers opening up rice markets and grain businesses, and simultaneously we must encourage grain-producing provinces to start up rice markets and grain businesses in Fujian's grain-poor regions. This not only may stimulate grain circulation, solve transport difficulties, and alleviate the burden on the state, it will also hasten the pace and extent of readjustment in Fujian's industrial composition.

VI. We must augment our macroeconomic control and management of grain problems. Grain problems are major matters that affect our overall situation and we absolutely cannot lower our guard to the slightest degree. Leaders at all levels should maintain a clear head about grain problems. Leaders must keep a "grain ledger" in their heads, and institute an overall balance between the state of demand and the state of production, procurement, transport, and sales of grain in their own prefectures and counties. They must make a complete appraisal of "natural disasters and human misfortunes" that might occur and have reliable contingency plans. The state grain sector must assess the overall situation and take a mainstream role to actively stimulate market grain business, utilize the mechanism of market regulation, and put pricing in order. They should make this their major economic lever and principle means of guiding and regulating agricultural production. In cities, towns, and grain collection and distribution centers we must gradually establish various kinds of grain trading centers, wholesale markets, and warehouses, and we must unclog circulation channels, stimulate grain businesses, and guarantee grain supplies.

In sum, readjusting and building a new rural industrial composition is a long-term, complicated task. We absolutely must not act with undue haste or handle matters arbitrarily. In our current readjustment of rural industrial composition, we should adopt a positive, safe attitude and conscientiously carry out a policy to "begin the battle cautiously, seeking and attaining victory." Based on the situation in Fujian, the focus of our revisions in rural industrial composition should be a close reading of our natural conditions and development of rural industry and tertiary industry. The pace and scale of readjustments in planting composition should be decided based on the quantity of grain transferred into Fujian. Because the amount of grain transferred into Fujian is also limited by factors of transportation, processing, storage, financial budgeting, and foreign exchange payment, we must look at the entire situation and strike an overall balance. To resolve Fujian's grain problems we should adopt a policy that relies primarily on provincial growth in grain production, with suitable secondary expansion of grain transfers into the province.

12510
CSO: 4007/354

STABLE, COORDINATED DEVELOPMENT OF RURAL ECONOMY URGED

Guangzhou NANFANG RIBAO in Chinese 20 Jan 86 p 4

[Article by Lan Fangli [5663 5364 2621]]

[Text] The party Central Committee and State Council pointed out in their plan for rural work in 1986 that "the general demand of 1986 rural work is to carry out policies, reform thoroughly, improve production conditions, organize pre- and post-production services, and promote the continued stable and coordinated development of the rural economy." This demand is feasible, extremely suited to the actual conditions of Guangdong's countryside, and we must conscientiously carry it out.

The demand that the rural economy continue stable, coordinated development in the new year is well founded and necessary, and it also can be realized. This is because Guangdong's situation was very good last year, yet there are also some problems. By following this demand, we both can develop a wonderful situation and also can solve existing problems. In 1985, both the province of Guangdong and the nation as a whole reformed the monopoly procurement system, adjusted the rural industrial structure, enabled production to develop further, enlivened circulation, and improved living standards, on the foundation of having implemented the responsibility system. Last year, in spite of the fact that Guangdong met with rather severe natural disasters, agricultural production still had a good harvest, and the total output value for agriculture reached 18 billion yuan, a 7-percent increase over the previous year. There was overall growth in forestry, animal husbandry, sideline production, and fishery. Aside from a reduction in grain production of several billion jin, there was an overall increase in other agricultural products, and some increased quite a lot. Compared to the previous year, sugar cane increased 28 percent, fruit increased 36 percent, and pond-raised fish increased 11 percent. With funding difficulties, rural enterprises still increased 42.1 percent. With the development of a diverse economy, secondary industries, and tertiary industries, farmers' income has also increased dramatically, and the per capita annual income could reach about 495 yuan, a 16.4-percent increase over the previous year. This is to say that through several years of reform, Guangdong's rural economy has emerged from last year's extremely unbalanced situation to a new era of continued, stable, coordinated development, and we should have full confidence in realizing this year's general demand for rural work.

Of course, there are also some problems. For example, the reduction in grain production is a problem. The reason for reduced grain production is multifaceted. One reason is severe natural disasters, which are hard to combat. A second is that we have made great strides in adjusting the rural industrial structure and reduced the area sown to grain by over 5 million mu. A third is that due to the high cost of grain production and the low income, the grain growing enthusiasm of some farmers has fallen and their management has gotten lax. A fourth is agricultural investment has dropped, and the water conservancy facilities in farm fields has become antiquated and fallen into disrepair, directly affecting grain production. A fifth is that the recognition of the guiding principle that makes agriculture the foundation is quite weak, and in recent years the sound of "you can't become rich without industry" and "your can't enliven the economy without commerce" are louder than the sound of "you can't be stable without agriculture." Some people even feel that the word "agriculture" comes last in the expression "trade, industry and agriculture" because agriculture is not important. Through an analysis of the various reasons for the reduction in grain production, we can show that carrying out policies, reforming thoroughly, improving production conditions, and organizing pre- and post-production services are absolutely necessary.

If we wish to enable the rural economy to continue stable coordinated development, then we must do well in the following areas of work.

We must place agriculture in the proper position and get a good handle on grain production. The development of the national economy is based on agriculture. This not only reflects economic laws, but natural laws as well, and we must resolutely and unshakably make this a long-term strategic guiding principle. And "by no means relax in grain production, and actively develop a diversified economy" is the fundamental guiding principle for leading the farmers. Throughout the whole national economy, we must correctly handle the relationship between agriculture and other fields. Within agriculture, we must correctly handle the relationship between grain production and a diversified economy, which mutually promote each other. To emphasize grain production is certainly not to say that we can neglect a diversified economy and return to the old path of solely engaging in grain production. Experience shows that the old path by no means achieved the goal of increasing grain production, but on the contrary, created a stagnant situation in agriculture. There are many places which developed a diversified economy, and which developed forestry, animal husbandry and fishery, etc., and grain production greatly accelerated. Yet we must never take grain production lightly, but must keep a good grip on it. If we don't get on top of grain production, then we will not be able to solve the food problem, and this would inevitably affect the development of the diversified economy and other fields.

Based on the actual situation in Guangdong, we should stabilize the area that is presently sown to grain. In adjusting the structure of agricultural production, we should advance into neglected mountains, neglected slopes, neglected waters and shoals, open up new realms of production, and use the advantages of our province's many mountains, broad waters and long coastline to go into developmental production in a big way, and set up a large number of commodity bases of different types and with different characteristics, including commodity grain bases.

Rely on science and technology and strive to increase inputs. The Seventh 5-Year Plan requires that the total grain output reach 900 billion jin, maintaining a per capita average of about 800 jin. This is a new stepping stone, and as long as we rely on science, increase inputs, improve per-unit yield, and stabilize area appropriately, then we will be able to guarantee it. If Guangdong's per capita grain is to reach the level of 800 jin, then in the same way, it can only be done if we rely on science and increase inputs. We must increase inputs into agriculture, taking a part of each financial administrative level to use in capital construction for agriculture, and must also support agricultural production more in the the areas of chemical fertilizer, agricultural chemicals, and other means of production, the "three big materials," diesel oil for agricultural use, foreign exchange used for agriculture, etc., so that there will be a stable foundation for the development of the whole province's economy. Agricultural development is making greater and greater demands on science and technology. In order to enhance science and technology work in agriculture, we must further implement policies, and mobilize the enthusiasm of the many agricultural science workers; we must enhance the cooperation of the provincial, city and county agricultural science departments, and created a strong, effective network of science and research, testing and popularization in Guangdong; we must pay particular attention to setting up sound technology extension stations at the township level, so that they can play an even better role in service to production.

Thoroughly carry out reform and do a good job in the realm of circulation. For the past few years, we have been carrying out reform in the rural economic system, but we are far from arriving at our set objective, and we must uphold reform, and thoroughly reform. We must continue to perfect the two level operational system combining centralization and decentralization of the regional cooperative organizations that were in place, strengthen management of land, contracts and finance and develop business services; areas that are economically developed can summarize their experience in popularizing specialized cooperative service organizations, making sound township and village agricultural economic service stations, developing technical and business service and necessary management work, and so help rural households improve economic results. One conspicuous rural problem is that circulation does not flow smoothly. We must increase new channels of circulation and new commercial forms to solve this problem. Now, many counties and prefectures have set up relationships with other provinces for jointly managing hogs and grain, and results have been good. This experience is very much worthy of summarization and popularization.

In developing rural enterprises, we must uphold the principle of using industry to boost agriculture. The development of rural enterprises is suited to national and to provincial conditions, and this is the only route that the countryside can follow. Within a very few short years, the output value of the nation's rural enterprises has reached over 200 billion yuan, absorbed 60 million laborers, overcome the difficulties of limited land, surplus labor and insufficient funds and has found an effective path for establishing new relationships between the city and the countryside. In the past few years, Guangdong's rural enterprises have developed very rapidly, taken care of 4 million rural laborers, had a total output value in excess of 18 billion yuan, and have already become an important new economic power for the people of the province and nation and an important mainstay for the rural economy. Consequently, we must continue to develop while suiting measures to local conditions. The implementation of the principle of using industry to boost agriculture is mainly for the purpose of adjusting how much grain and how many other cash crops are grown in agriculture, and adjusting the matter of there being too much of a disparity in earnings between engaging in agriculture and engaging in secondary and tertiary industries, in order to mobilize the enthusiasm of the farmers for growing grain. At the same time, we must encourage farmers to put more into agriculture and improve the production conditions for agriculture.

12452
CSO: 4007/259

PROVINCE SUPPLIES BEIJING, TIANJIN WITH PORK

Beijing NONGMIN RIBAO in Chinese 10 Jan 86 p 1

[Text] For the past year, proceeding from the thought of "serve Beijing, enrich Hebei," the area of Hebei surrounding Beijing has emphasized the development of lean hog production and actively linking up circulation channels with Beijing and Tianjin, and from January through October of last year, 965,000 head of hogs were brought into Beijing and Tianjin. Of these, most were lean hogs. Recently, they learned from a national conference for exchanging experience in lean hog production that Beijing and Tianjin are from 2.5 to 3 million head short of lean hogs annually, and they plan to use the 30 counties surrounding the two cities to gradually establish a lean hog base. By 1990, they will be able to supply Beijing and Tianjin with 3 million head of lean hogs annually, averaging 100,000 per county. As long as Beijing and Tianjin open their gates wide and permit Hebei's counties to enter Beijing to engage freely in sales, they will be able to bring nearly 10,000 head to market daily, enabling the people of Beijing and Tianjin to eat fresh lean pork.

All levels of leadership in Hebei have given a lot of attention to the work of developing lean hogs and serving Beijing and Tianjin. In February of this year, the provincial party committee and provincial government issued documents which clearly set forth that animal rearing is to emphasize the development of lean hogs. Accordingly, the provincial animal husbandry department has hired hog rearing specialists from inside and outside the province, convened a discussion and demonstration conference on how to develop lean hogs, and clarified the methods and route for Hebei to develop lean hogs. At the same time, they have invested 3.43 million yuan for the construction of base counties and are gradually setting up five systems for breeding sound improved varieties, feed processing and sales, the control and prevention of epidemic diseases, and the processing and sales of products and technical service, and so are promoting the rapid development of commodity production for hog rearing.

12452
CSO: 4007/258

GROWING AGRICULTURAL MARKETS DISCUSSED

Shijiazhuang HEBEI RIBAO in Chinese 15 Jan 86 p 1

[Article by Li Xiangrong [2621 0685 2837]]

[Text] In the past 2 years, Hebei has integrated small city and township construction in order to meet the needs of the rapid development of a rural economy, and started up over 170 new-style markets in the cities and in the countryside. These markets can accommodate over 43,000 households of merchants and fixed peddlers, close to 80,000 people, over 150,000 temporary peddlers, and play an important role in enlivening the urban and rural economies, developing tertiary industries and in making life more convenient for the masses.

The development of market construction has produced unprecedented prosperity in the urban and rural economies. According to statistics for the first 11 months of 1985, the amount of market trade in the province reached 3 billion yuan, a 47.9-percent increase over the same period the previous year, and of this urban agricultural markets increased 89 percent and rural growth was 40 percent, making the highest level in history. Since the price system reform for agricultural and sideline products, the amount of non-staple foods such as vegetables, meats and eggs, going on the market has increased dramatically, increasing an average of over 30 percent since before the reforms. Now 70 to 80 percent of the non-staple foods needed for the daily lives of urban residents comes from markets, and markets have already become a major channel of circulation for agricultural and sideline products.

The construction of new-style markets has not only enlivened the provincial economy, it has also enhanced its horizontal economic relationships with other provinces and their cities. The just-completed "Hebei Yiji" Market in Huolu County is attracting customers from all directions, has an average daily volume of trade of 400,000 yuan and 60,000 to 70,000 people come to market. The market in Xinle County has established a regular economic relationship with Beijing, Tianjin, Shanxi, Henan and other provinces, and by the end of November, over 2.4 million jin of peanuts had been shipped to other provinces, 1.5 million jin of shelled peanuts, 2.4 million jin of fruit, and over 100,000 piglets, for a total volume of over 6.99 million yuan. At the same time, this also provided excellent conditions for farmers to go into the city and engage in industry and commerce and to develop tertiary industries, and the development of an individual economy and the thriving market trade have allowed many farmers to become prosperous through hard work, promoted the development of the rural market economy and the adjustment of the industrial structure.

12452
CSO: 4007/258

FRESHWATER FISH CULTIVATION DISCUSSED

Reservoir Fish Cultivation Urged

Shijiazhuang HEBEI RIBAO in Chinese 16 Jan 86 p 2

[Article by He Jin [0149 6855], Wu Weibin [0702 5898 1755], Gu Xingshan [6328 5281 1472] and Liu Jianguo [0491 1696 0948]: "Make Concerted Efforts To Expand Cultivation of Reservoir Fish"]

[Text] "Take effective measures, develop a good foundation for reservoir fish rearing production, strive to improve Hebei's current situation in reservoir fish rearing, and by the year 1990alleviate the difficulty that the people of Hebei have in getting fish." This was the proclamation by a responsible comrade of the provincial Water Conservancy Department at the recently concluded provincial conference for exchanging work experience on reservoir fish rearing.

Since 1979, there have been tremendous developments in Hebei's reservoir fish rearing enterprises, and at present, two-thirds of the province's reservoirs have started fish hatcheries, the area of fish ponds has reached 1,046 mu, annual fish fry production is over 50 million, over 500 large and small fishing boats have been added and there are more than 30,000 meters of various kinds of nets. After meticulous surveys and scientific planning, the provincial Water Conservancy Department formulated new objectives of struggle: during the Seventh 5-Year Plan, the per-mu yield for reservoir fish rearing surfaces greater than 10,000 mu should reach over 20 jin; it should reach over 40 jin for those surfaces over 1,000 mu, and it should reach over 80 jin for those surfaces under 1,000 mu. To realize the above program, the provincial Water Conservancy Department set forth a management system for the continued perfection of reservoir fish rearing. All levels of water conservancy departments and reservoir management units must have unified plans and organized fishery production. They may adopt various types of management forms, and can be managed by the reservoir's administrative unit itself; or it can be managed jointly by townships and villages around the reservoir; or contracted to the people in the reservoir district. Water conservancy departments should conscientiously get a handle on specialized contracts or joint production contracts by large-scale contractors for small-scale reservoirs that are administered by townships and villages, and should encourage over-all contracts for managing fish, water, engineering projects, greenification and flood control. Reservoirs that are administered by the state should be based on layers of contracts with the principle of tasks given to groups and responsibility given to individuals, with very clear tasks, plans and targets. The contracts' targets must be strictly honored, organically combining responsibility, authority and benefits.

Actively promote the scientific rearing of fish. Reservoir fish rearing should insist on making rearing the main thing, combine increased rearing with catching, and suit measures to local conditions with the guiding principle of each laying particular emphasis to particular things. They should energetically get a handle on artificial cultivation and fingerling production, and particularly on large-scale fingerling production. They must set forth scientific requirements in the areas of fingerling size, the density of setting fish out to breed, and in varietal proportions. They must fully utilize the advantages of soil and water resources surrounding water conservancy projects, and use various methods such as net pens, reservoir bays, reservoir DROP-OFF areas to solve fingerling production. And they must continually expand their technical contingent for reservoir fishery production.

Commentary Promotes Freshwater Aquaculture

Shijiazhuang HEBEI RIBAO in Chinese 16 Jan 86 p 2

[Commentary: "There Is Great Potential for Freshwater Aquaculture"]

[Text] With the opening and enlivening of the rural economy in recent years, freshwater fishery has developed quite quickly, and a lot of fairly good models for freshwater cultivation of fish have sprung up. This is very heartening. However there is still great potential for freshwater fishery, and many useable water surfaces have still not been used or are not well used. Consequently, all areas with water resources should mobilize the masses, formulate measures get moving with freshwater fishery as quickly as possible.

Some comrades feel that Hebei's water resources are quite inadequate, with successive droughts in recent years, how is there any way to use fresh water to raise fish? Actually, this way of thinking is one-sided. Viewing the province as a whole, we still have a lot of places with fresh water that can be used to raise fish. We have over 50 large and medium-sized reservoirs, upwards of 1,000 small reservoirs, several 100,000 mu of paddy fields, as well as canals criss-crossing the countryside, and innumerable pits. If we were to use all of these water resources, Hebei's freshwater fishery could certainly develop in leaps and bounds.

We have called for freshwater fishery for many years now, and those done well are well done and those done poorly are poorly done. Why is this? Examining the reasons, we find that it is mainly due to leadership. Some leaders say that freshwater fishery is important, but when it comes down to doing something about it, they put it at the back of their mind; or they make plans and formulate measures, but do not put them into operation, with the result that they are plans on paper only, and so we have to call for fisheries year after year, and year after year nothing is done. It seems that the key to the rapid development of freshwater fishery is in changing the workstyle of leaders. Actually, a lot of actual facts prove this point. There are many places and many reservoirs in Hebei where fish raising is done well because the local leadership make it an important undertaking, employing true enthusiasm, using real strength, and seeking substantial results, with the result that they raise more and more fish, obtain greater and greater yields, and and win better and better economic results. This not only contributes to society, but also makes a very good route for becoming rich for local farmers. In developing freshwater fisheries, some situations require the organization of associations of farmers or of staff and workers, and some just need the appropriate mobilization of thousands upon thousands of scattered households. But of course, all require the setting up of a sound responsibility system organically combining responsibility, authority and benefits.

12452
CSO: 4007/258

BRIEFS

AQUATIC OUTPUT GROWTH REPORTED--Last year the total output of aquatic products in Hebei exceeded 120,000 tons, an increase of over 15,000 tons over 1984. Of this, the amount of cultivated aquatic product could be over 5,000 tons more than that of 1984, an increase of over 50 percent. The development of aquatic cultivation has already become a main direction of attack for Hebei's fishery production. The area devoted to shrimp production in the province has dramatically developed at an average annual 6.7-fold increase. The rural cultivation of fish is already widespread throughout the province, and last year in more than 24,000 mu in the upper and lower reaches of reservoirs, both banks of rivers and canals, newly constructed fish rearing ponds throughout the countryside, and the more than 5,000 mu of rebuilt ponds, the cultivation area has expanded more than 50 percent over 1984, and the number of fingerlings released have increased more than one-fold. There has also been a broad increase in the number of baby shrimp and fingerlings breed. Along with the development of aquatic cultivation, occupations that serve it have expanded correspondingly. Last year, coastal areas built 35 shrimp feed processing plants, and their annual capacity could reach 14,000 tons; we built 49 compound feed processing plants for raising fresh water fish and their annual capacity could reach 20,000 tons. Last year coastal areas, the state and the masses invested in and started up 10 small and medium-size cooled warehouses, and cold storage capacity could reach over 1,500 tons. [Text] [Shijiazhuang HEBEI RIBAO in Chinese 17 Jan 86 p 1] 12452

WASTE COTTON PURCHASES--In recent years, the goods and materials recovery system of the supply and marketing cooperatives in Hebei Province has actively undertaken to purchase waste cotton and has achieved remarkable success. According to statistics of the Ministry of Commerce, Waste Materials Bureau, waste cotton purchases in Hebei last year were more than 13,000 tons, which amounted to 13.5 percent of recovery nationwide, ranking second. As of August this year, waste cotton purchases in the province totaled more than 10,100 tons, which was the highest level on record for a similar period. [Text] [Shijiazhuang HEBEI RIBAO in Chinese 29 Sep 85 p 1] 12513/13045

CSO: 4007/63

GOVERNMENT FARM AFFORESTATION DISCUSSED

Harbin HEILONGJIANG RIBAO in Chinese 27 Sep 85 p 2

[Article: "Reclamation Area Afforestation Amounts to 3 Million Mu over 5-Year Period"]

[Text] The government farm main bureau in the province, in readjusting the industrial structure, paid special attention to developing forestry production; during the period of the Sixth 5-Year Plan it planted 3,774,000 mu of manmade forests, which was 4.2-fold greater than the area afforested in the preceding 34 years. To date, trees have been planted on about 70 percent of the cultivated land, in or around 83.2 percent of the residential areas, and along 75.3 percent of the main highways. The reclamation area forestry-covered ratio has been increased from 8 percent in 1979 to 12.3 percent.

The important experiences and methods of the provincial farm main bureau in expanding forestry production were as follows:

--A set of effective policies were formulated, and implemented in a workable system.

--A forestry management organization and a specialized contingent were set up.

--A series of new techniques was popularized and applied, which solved the technical problem of planting and managing forests on a large scale.

--Diverse forms of responsibility systems, such as contracting family farms and contracting forestry management personnel, were implemented throughout in forestry production.

--A self-sufficient seedling production system emphasizing special genera of seedlings was set up, which resulted in nursery stock self-sufficiency.

12513/13045
CSO: 4007/63

HEILONGJIANG

BRIEFS

PROVINCEWIDE WOOL PURCHASES--The Heilongjiang supply and marketing system has actively purchased wool in order to satisfy the requirements of the province's wool-spinning industry. To date, 8.5 million jin have been purchased, which amounts to 80 percent of the annual plan, and 6 million jin have been allocated and shipped. [Text] [Harbin HEILONGJIANG RIBAO in Chinese 22 Sep 85 p 2]
12513/13045

CSO: 4007/63

HENAN

REFORM HAS REVITALIZED HENAN'S FARMS

Land Reclamation Progress

Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION] in Chinese 24 Dec 85 p 13

[Article by Chu Rusen [2806 1172 2773], chairman of the State Farm Management Bureau, Henan Agriculture-Animal Husbandry Division: "Reform Has Brought Vitality to Land Reclamation in Henan"]

[Text] Following the 3rd Plenum of the 11th CPC Central Committee, the state farm economy in Henan Province was smoothly readjusted. It was revitalized by the open policy and continued to develop during the reform. The former patterns of the state farms have been altered, and the problem of "eating from a big pot" has been solved. The emerging economic structure resembles a bird in which grain and fruit production are the main body and diversification and industrial production are the two wings. The entire state farm economy has entered a new period.

Since 1979, state farms throughout the entire province have had surpluses every year, and their economy has developed rather rapidly. Reasons for this include stimulation of workers' enthusiasm by continuous perfection of the economic responsibility system, readjustment of the internal structure of the state farm economy, development of commodity production and increased profits, and stimulation of productivity by science and technology.

The economic responsibility system of the state farms in Henan Province includes the "five fixed, one award" principle, salaries that depend upon amount of production, and contracts involving entire brigades, groups, or individual households. Based upon these principles, the state farms have tried to establish family farms. There are now 10,019 family farms of all types, and these include 62 percent of the total households. More than 1 year's experience has shown that family farms possess strong vitality and generally increase both profits and family income. During the first half of 1985, family farms in Henan paid profits of 2.120 million yuan, an 80-percent increase over the 1,174,000 yuan paid in all of 1984, 14-fold more than the same period of last year. The 4th Branch Farm of the Huang Fan area state farm is composed of 75 household family farms. At a time when disease and frost damage reduced Henan wheat production, the yield and gross production of this branch farm were the highest on record.

With regard to the three factors discussed above (readjustment of state farm internal economic structure, development of commodity production, and increased profits), we emphasized the following: (1) Stable agricultural production is a prerequisite for the enhancement of industry and commerce, two weak areas. During the past few years, Henan state farms have strongly emphasized agricultural production, readjusted crop distribution, and stabilized grain production. A combination of this favorable situation and market demand have allowed simultaneous emphasis of wine production and the food- and feed-processing industries. These industries are based upon the fruit, grain, and livestock-breeding industries. The state farms have also emphasized the pharmaceutical, paper, and building materials industries. The building materials industry is based upon locally available natural resources, such as stone quarries and cement blocks. The number of industrial companies has increased from 78 in 1978 to 171 at the present time. Since 1978, the province and six areas have established combined agricultural-industrial-commercial companies, and commercial high-rise buildings have been constructed in the cities of Zhengzhou, Pingdingshan, and Zhoukou. There are now 328 commercial networks. (2) We control market information and have readjusted the variety of products and enhanced construction of the basis for export production. According to local conditions we have fully exploited such favorable export commodities as swine, silk products, pickled garlic, and preserved fruits. Swine from Bo Ai Farm are licensed for sale in Hong Kong. Silk products, pickled garlic, and preserved fruit are sold in many countries of Southeast Asia, Hong Kong, Japan, Western Europe, the United States, and Eastern Europe. (3) Based upon demand created by higher living standards, we have expanded the production base for sideline food products and strongly emphasized grain conversion. Since 1978, gross production of meat, eggs, milk, and fish has increased 80 percent, 13-fold, 9.5-fold, and 4-fold, respectively. These increases have greatly expanded the supply of sideline food products in townships near the farms. Workers' incomes and profits have also increased greatly.

Brief Introduction

Beijing ZHONGGUO NONGKEN [STATE FARMS AND LAND RECLAMATION] in Chinese 24 Dec 85 pp 13, 14

[Article by Peng Quanlin [1756 3123 2651]]

[Text] Henan Province is located in the eastern part of central China. The climate is moist, and the soil is fertile. Three mountains found in the southwest portion of the province [Taihang, Funiu, and Tongbai contain many rich resources. Its vast plains are quite suitable for the development of agricultural production. The Longhai and Jingguang railway lines run east-west and north-south, and transportation is very convenient. The Huang He and Huai He are two large water systems that run from west to east and provide abundant water resources for industrial and agricultural production.

State farms in Henan Province have developed very rapidly under the guidance of the CPC and the people's government. The Boai Farm was established near Taihang mountain during the birth of the new China in 1949, and there are now 94 state farms in the province. They are found in 77 counties, and most are along the former path and flood plain of the Huang He; 72 specialize in grain and bean production, 10 specialize in livestock production, and 12 specialize in production of tree fruits. State farms occupy a total of 627,000 mu, of which 326,000 mu is farmland and 64,000 mu is orchards. The major crop is wheat; corn, soybeans, cotton, and peanuts are also important. Major fruit crops include apples, grapes, and pears; dates are next in importance. Farms that are near Hubei produce citrus fruits, while farms near Nanyang and Xinyang also produce a small amount of tea.

Since the 3rd Plenum of the 11th CPC Central Committee, combined management of agriculture-industry-commerce has been actively pursued, and economic results have obviously improved. There are now 171 industrial enterprises, and the total value of industrial production in 1984 was 45.84 million yuan. Industrial products now include food, grain and oil, textiles, chemicals, pharmaceuticals, building materials, machinery, and printed products. Six of these are outstanding departmental products, and seven are outstanding provincial products. Some of these products are sold to seven countries and areas in Europe, Asia, and America. In order to develop new products and import resources and technology, provincial farms have established economic relationships with more than 10 provinces and cities within China and 10 cities and counties within the province. They have also begun to discuss products with foreign merchants. Commercial development by the state farms has been very rapid, and there are now 328 commercial networks in the province. Sales in 1984 totalled 29.74 million yuan, and profits were 1.38 million yuan or one-third of total state farm profits in the province.

Scientific research by state farms has undergone new developments. Many farms have scientific research institutions, and some results of scientific research have received departmental and provincial awards. For example, the improved wheat "7023" variety developed by Boai Farm has already been publicized in the wheat-producing areas of China and has received a first-place award for technological improvement from the Agricultural, Livestock, and Fisheries Ministry. The Huang Fanqu Farm has cooperated with the Beijing Agricultural University to develop the Fan Nonghua swine. This breed, which has received favorable evaluations from both within and outside China, also received a second-place award for technological improvement from the Agriculture, livestock and Fisheries Ministry. Other products have also received provincial science and technology awards.

State farms in Henan have now been reformed, and they are progressing under directions provided by the CPC central authority. They are striving to achieve the great goal of quadrupling production by the end of the century.

13015/9435
CSO: 4007/269

HUNAN

BRIEFS

TOBACCO PRODUCTION, PURCHASES--The area planted to tobacco in Hunan this year amounted to 1.27 million mu, and output will reach 2.8 million dan, which is a 63.1-percent increase over last year. In addition to satisfying the production requirements of the Yengzhou Tobacco Factory and state allocation quotas, more than 1 million dan will remain which will not find a market. One of the reasons why this situation arises is that planting more tobacco helps bring in regional tax revenues, which motivates each locality to grow tobacco: another reason is that since income from growing tobacco is higher than for growing grain and cotton, the peasants this year cut back on the area devoted to grain, and expanded tobacco farms. The purchasing departments in the various localities should counter the situation mentioned above by planning early and organizing sales. The governments in the various localities should carry out macroplanning with respect to tobacco production as well. [Text] [Beijing ZHUANYEHU JINGYING BAO in Chinese 5 Oct 85 p 4] 12513/13045

CSO: 4007/63

INCREASED EXPORTS OF FARM MACHINERY

Beijing ZHONGGUO NONGJIHUA BAO in Chinese 15 Jan 86 p 1

[Article: "Expansion of Farm Machinery Exports in Jiangsu Have Produced Good Results; Their Products Are High in Quality, Low in Price, and Fit the Needs of the Market"]

[Text] Following the spirit of an announcement by the State Council concerning the expansion of machinery and electronic product exports, the machinery section of Jiangsu Province augmented exports of agricultural machinery products in the later half of 1985 and emphasized production of products that fit the needs of the international market. They began to establish production structures for three types of export enterprises (export-based enterprises, expansion of self-governing enterprises involved in foreign trade, and general export enterprises). In this way, exports were transformed.

Market analyses showed that agriculture in Southeast Asian countries is quite similar to that of southern China and that the cultural and technical level in rural areas is not very high. Therefore, these countries require mid- and small-sized agricultural machinery and accessories that are simple, easy to operate, and reliable. During the 58th Fall Trade Exhibition, the Jiangsu Machinery Import-Export Co. promoted their products and negotiated with Pakistan, Malaysia, Thailand, Bangladesh, and Indonesia. A total of 4,741 walking tractors, small diesel engines, diesel generators, and small hydroelectric generators were exported. There were also 4,080 sprayers, threshers, and sprinklers, and 64,600 plow blades and accessories sold. The total trade value reached $2.16 million or 16.62 percent of the total agricultural machinery sold during the fall exhibition.

In order to expand production of agricultural machinery for export and fully exploit the international reputation of the Jiangsu No 504 tractor, the following requirements have been established: "Closely coordinate, implement the organization, quality first, and timely completion." In this way the reputation of our products in international markets will be ensured. With much effort, China's mid-sized tractor has entered the U.S. and Peruvian markets for the first time (530 tractors this year). At the same time as exports of agricultural machinery have been strengthened, many types of coordination activities have also been conducted. Examples include mutual investment and manufacturing according to samples and designs provided by the buyer. The Nantong Agricultural Machinery Accessories Factory has accepted samples and designs for internal combustion engine accessories provided by merchants in Hong Kong and Macoa. This project provides one-third of the factory's production value. The foreign merchants have praised the good product quality.

13015/9435
CSO: 4007/269

MEASURES TO DEVELOP FOOD INDUSTRY DISCUSSED

Beijing ZHONGGUO XIANGZHENQIYE BAO in Chinese 11 Dec 85 p 3

[Article by Li Yongji [2621 3057 4949]]

[Text] Editor's note: Although this article is rather long, after reading it, people will be inspired and encouraged. "Proposals of the Party Central Committee on Formulating a Seventh 5-Year Plan for Developing the Nation's Economy and Society" points out that "generally speaking, in starting up rural enterprises, we should focus on agriculture, serve agriculture, stress developing the processing industry for agricultural products and develop pre- and post-production service industries such as storage, packaging, transportation and sales." In the past 2 years, Jilin's rural enterprises have been following this path, and, in accordance with the social characteristics of the resources for the province's agricultural and sideline product, have been stressing the processing of agricultural and sideline products, promoting the prosperity of farming and so bringing with it, the flourishing of all rural occupations and the rapid development of market town construction. [End of editor's note]

In the past 1 or 2 years, the processing industry for agricultural and sideline products of Jilin's rural enterprises has taken the route of coordinated process of farming, rearing, gathering, processing and marketing, and has developed rather rapidly and formed the preliminary embryonic form of six coordinated processes. The output value for the food industry grew 151.4 percent from 1980 to 1984, and the proportion of the food industry within rural enterprises grew from 6.3 percent to 9.4 percent, its proportion within the total output value for rural enterprises increased from 4.9 percent to 5.2 percent, and its proportion within the provinces total food industry grew from 2.7 percent to 4.9 percent. By the end of this October, the output value of the food and feed industries had reached 366.15 million yuan, or 18.7 percent of the total output value of rural industries.

In the past few years, there has been unprecedented development in Jilin's agricultural production and its diversified businesses, and there are more and more agricultural, sideline and specialty products requiring processing. To meet this need, all levels of rural enterprise management departments have emphasized the coordinated service for agricultural production, doing well in the processing of agricultural and sideline products and the transformation of grain, and they have resolutely engaged in enterprises centered around agriculture and managed them well to promote agriculture. They are engaging in processing on a foundation of having a good capital construction in raw materials, and doing it in a very coordinated way starting with farming, rearing, and gathering down to processing, starting a series of enterprises based on the processing industry for agricultural and sideline products, reaching the goal of running a plant and so enriching a village and enriching a township, and then enriching several villages and several townships.

The first coordinated process is milk product processing based on dairy cattle and dairy sheep. At present, in addition to establishing a series of milk product processing points with the purpose of developing milk resources, we have already set up and started production at four milk product plants capable of handling 15 tons of fresh milk daily, and half of all townships and one-sixth of all villages have feed processing plants (points), and two more are under construction. Areas where plant construction began rather early have already gotten on the path of common prosperity. Fengman Township in the suburbs of Jilin City was formerly a poor township, and in 1982, the per capita income for the village was 120 yuan. In 1983, they invested 700,000 yuan and constructed a powdered milk plant with a capacity of handling 15 tons of fresh milk daily, and in the 2 years time up to the present, the township has gone from raising 800 head of dairy cattle to raising 2,000 head, the profits earned by the plant has been used to fully repay its debt, and the per capita income of the township has increased to 400 yuan.

The second coordinated process is to use farmers' surplus grain in feed processing, develop a poultry raising industry and process meat based on the development of poultry rearing. The number of feed processing plants (points) in the province has reached over 4,900, and of them, over 550 are managed by rural enterprises, and one-half of all townships and one-sixth of all villages have feed processing plants (points). Every processing plant (point) provides feed for over several dozen animal-rearing households. Along with the development of the poultry raising industry, they have also started up 18 slaughter and freezing houses and meat canning plants. This year, Yehe Township in Lishu County started up three feed processing plants, and the number of specialized poultry rearing households has reached 316, and they have also started a canning plant for dressing and cooking chickens with a 1,000 ton capacity. From grain to feed, from feed to chickens and ducks, and from chickens and ducks to the can, they have formed a coordinated production line, and promoted the coordinated overall development of agriculture, animal husbandry and rural enterprises.

The third coordinated process is growing fruit trees and engaging in fruit processing and storage. In recent years, both fermented and fresh grapes have developed quite rapidly, and haw and the three "berries" (strawberries, purple berries, and raspberries) have also developed. Liuhe County already grows over 10,000 mu of grapes, and has already become a concentrated area for raising fruit. Yehe Township and Shengli Township of Liuhe County and Lishu County, Xiaosiping Township of Dongfeng County, Hongxing Township of Yushu County, and Fengxiang Township of Huaide County all have cultivated areas of about 10,000 mu. These areas have all set up fruit processing plants or storage cellars, and the number of fruit processing points in the province have already reached 11. The Baoshan Canning Plant in Panshi County has 450 mu of orchard, and the number of orchards in the township has increased to 51. They use the best fruit for canning, use seconds for making juice, and use juice to make soda pop, champagne and other beverages. Because they have good a good handle on fruit tree cultivation, fruit processing and storage, they have coordinated everything into a single process, mutually promoting each other, both giving impetus to fruit cultivation and also promoting the development of fruit processing and storage.

The fourth coordinated process is growing castor oil plants and the processing of castor oil. Baicheng Prefecture has sandstorms and is arid and suited to growing castor oil plants. At present, they already have 12 castor oil plants, and annual production capacity is 36,000 tons. This year, it purchased 20,000 tons of castor oil plants, sold 10,000 tons of castor oil, produced 10,000 tons of castor oil cakes, farmers' income from selling castor oil plants was 22 million yuan and enterprise profits were 800,000 yuan. Engaging in castor oil plant processing has allowed some townships to go from being poor to being rich, and promoted the establishment and prosperity of rural market towns. Heishui Township of Tao'an County was originally a poor village with "just enough grain to eat," and "have no cash to scoop up," but in 1981 they started up a castor-oil plant, with tremendous changes in the township's economy. The site of the township government has changed from a big village to a small market town. Since the castor oil plant was started up, they have also used the castor oil to start a chemical plant, and used castor oil cakes as fertilizer to grow water melons. There are many people who come to buy water melons and sell castor oil plants and so they have also started restaurants, hotels, warehouses, barber shops, tailor shops, photographers and other tertiary industries. From 1980 to 1984, the output value of rural industry has increased from 330,000 yuan to 3.5 million yuan, the total township income from industry and agriculture has increased from 3.84 million yuan to 10 million yuan, and the per capita income has increased from 155 yuan to 400 yuan; taxes paid to the state were only for agriculture in the past, and were 49,000 yuan annually, but now, the taxes paid annually by the one castor oil plants alone are 16,000 yuan. This year they will also build a chemical plant for the multiplre processing of castor oil. There is coordinated development from the planting of castor oil plants to the processing of castor oil, to using castor oil and to run a chemical plant, [from] using castor oil cakes to grow water melons, to starting tertiary industries to serve these enterprises.

The fifth coordinated process is growing sunflower and processing various types of sunflower seeds. Jilin Province grows a lot of sunflowers, and in the past we sold a lot of sunflower seeds to the south, and then bought back five-flavor sunflower seeds to sell. Starting last year, they introduced equipment and recipes from the south, and used the precious delicacies from the Changbai mountains to formulated some new recipes with the special characteristics of the province. At present, there are roasting plants (points) throughout the province, solving the problem of difficulties in selling sunflower seeds. The Northern Foods Plant run by Chengfeng Village in Baicheng City's Baoping Township has adopted a method for producing five-flavor melon seeds of distributing processing work to various houses, with centralized quality testing, packaging, and sales. There are 100 households that are home roasting points, with 150 installed roasters and a daily production capacity reaching 150 tons. They have already signed sales contracts for 55 million tons and the output value could reach 10 million yuan. They are using the profits earned from processing to reduce the burden on the farmers, and the village committee has decided to take only a five percent contract fee for the land this year, and next year, it will be completely done away with. In the process of running roasting points, they gave first consideration to poor households, and used the profits earned from processing to provide roasters to the poor households, selling them on credit, and so enabling the poor households of the whole village to start on the road to riches. Li Yinghua, a brigade member of the third brigade, is crippled and unable to work, and all seven people in the family depend on relief and loans in order to live, and they were over 3,000 yuan in debt. In August of this year, they borrowed a roaster from the village to start a roasting point, processing for the food plant, and by mid-November, they had already processed 40,000 jin and earned a net income of 4,000 yuan.

The sixth coordinated process is using the abundant wild mountain vegetation and developing a food processing industry. Those already in place include food processing industries for wine, mountain fruit juice and wild mountain vegetables.

The processing of agricultural and sideline products by Jilin's rural enterprises is already developing in the direction of multiple processing, on a foundation of farming, animal raising, gathering and the protection of wild resources.

12452
CSO: 4007/253

'GREAT HOPE' REPORTED FOR GRASSLANDS, AFFORESTATION AREAS

Beijing LIAOWANG [OUTLOOK] in Chinese No 47, 25 Nov 85 pp 24-25

[Article by Zhang Xuanguo [1728 6693 0948]: "The Prairie Should Read the 'Book Of Grasses and Trees'"]

[Text] Nei Monggol spans China's northeast, north, and northwest. It is a vast and rich land. The region as a whole has over 1 billion mu of grassland, comprising about one-third of the total for China as a whole. It has 240 million mu of forest, along with over 400 million mu of barren hills and land suitable for grasses and trees. There are over 1,100 species of flora suitable for forage grasses. History records that Nei Monggol had "a thousand li of verdant grasses and a belt of green"; "a thousand li of fertile wilderness, and roads glutted with cattle and sheep."

Due to blind sod-breaking, however, the ground cover has been damaged and this great stretch of fertile wilderness has turned to desert. At the present time, the autonomous region is one-fourth desert--the Gobi. Exacerbating the situation is the fact that in the past there was unrealistic emphasis on "making grain the mainstay"; and during the 10 years of unrest the mistaken slogan that "grazing people should not eat grain that bothers their conscience." As a result, what was followed was the seriously destructive road of "transformation to grain, then to desert, then to poverty," which made the deterioration of the ecological environment even more dramatic.

"Strumming the Pipa Backwards"

The people find their own senses. Since the 3rd Plenum of the 11th CPC Central committee, the CPC committee of Nei Monggol Autonomous Region has made the planting of trees and grasses into a strategic measure for transforming the face of the entire region. In its 1981 directive concerning Nei Monggol, the central leadership scientifically ascertained policies for production and construction in the region: "Emphasis on forestry and animal husbandry, and diversified operations." Comrade Hu Yaobang in his 1982 inspection of the region indicated: "Individuals, collectives, and the state should go forward together to plant grasses and trees. More shrubs should be planted, for shrubs are also trees." In its actual work, the regional committee has conscientiously implemented this ideology and correctly put forward the policy of "the two turnings-around," which means turning "the state, collectives, and individuals go forward together" into "individuals, collectives, and the state go forward" and turning "planting trees, shrubs, and grasses together" into "planting grasses, shrubs, and trees together."

Implementation of the "two turnings around" policy has opened a new page in the history of planting of trees and grasses. "Turning around" actually means "straightening out" to follow the will of the people, adapting to national strengths, and in accordance with rules. The old policy of "the state, collective, and individual going forward together" put the individual last. As a result, the state and the collective had more than they could do and the individual less. This damaged mass enthusiasm. The past policy of "trees, shrubs, and grasses together" placed inordinate emphasis on full-sized trees and slighted shrubs and, even more, grasses. Consequently, in some regions the trees grew slowly and with difficulty. Shrubs were not held up by the people to be forests, and grazing lands came to hold "the back seat." Meanwhile, barren regions remained exposed and mountain wilderness remained bald. The policy correction and further relaxation of implementation measures put planting of grasses and trees by individuals first, thereby providing a great incentive to the many households.

In the last few years, guided by these correct policies, the road toward planting grasses and trees in Nei Monggol Autonomous Region grows broader day by day. There are breakthroughs year in and year out. Before 1980, the region had only 3 to 4 million mu of manmade grassland. Between 1981 and the present, that figure has gone to 17 million mu. Before 1980, reforestation in the region was less than 5 million mu. Beginning in 1981, that figure has gone up over 1 million mu per year. In 1984, the area of manmade grasslands reached 6.86 million mu, breaking historical records. Reforestation broke through the 10-million-mu barrier, placing the region first in the nation. This implementation in grasses and trees has effectively spurred and protected the development of livestock production.

Taking the Road of Science

The adoption and spread of modern science and technology has played a major role in accelerating the pace of grass and tree planting in Nei Monggol. In 1981, the region as a whole had 11 leagues and 32 banner counties planting grazing grass from the air on an area of 1.27 million mu. This was more than the total for all previous years. By this year, the area planted from the air has come to 4 million mu, which is half the total for the entire nation. The primary plantings from the air are such species as [5017 2693], seed artemisia, [3097 2092 2489], sweet clover, and citrus [2899 2742]. Results are beginning to come on the early plots. The ground cover rate has gone up from 15 percent to between 45 and 75 percent. Some areas have already become bases for autumn haying and winter grazing. The success of airborne sowing in Alishanzuo Banner on the eastern rim of the Tenggeli Desert where rainfall is less than 200 mm per annum has startled the world desert-management community. Specialists from home and abroad have praised this as a "breakthrough," and it has opened up a broad road for humanity in conquest of the desert. Where greenery used to be sparse, it is now verdant. This year, the banner again began airborne sowing in locations having rainfall between 100 and 150 mm as an experiment. This is a further exploration toward establishment of new types of grass farms.

Over the last few years, the rate of subsistence and preservation of grasslands and reforested areas in Nei Monggol has continued to improve. A major reason is the wholesale adoption of scientific methods which are adapted to fit local conditions. For example, reforestation designs for prairie farm regions have coordinated fields, irrigation ditches, roads, and forests, managed reforestation strips, and small networks of protective forests around fields. In mountain regions, mountain, waterway, forest, and road planning has been comprehensive, with comprehensive control over small watersheds. In desert regions, grassland, shrubs, and trees have been linked up. Reforestation, enclosure, and management have all been stressed; reconstruction and utilization have been equally tackled to fix the sand and create forests. Grazing regions have linked up with prairie construction, arrangements have been made for manmade forage and feed bases which preserve the forests and serve as windbreaks for sand-holding forests. In places where natural renewal is possible, measures for enclosing mountains and deserts with grass sprouts have been taken. Rapid-growth forests have been planted where water conditions are relatively good. Economic orchards have been planted where transplantation of fruit trees is feasible. All of these have shown good ecological and economic results.

In order to improve technical standards for planting grasses and trees, Nei Monggol has stressed the training of S&T personnel. The region, the leagues, and the banner counties have created training classes on all levels, with each assuming its own responsibilities and each having its own focus. The region has as its priority the training of teachers; the leagues take care of training technical mainstays; and the banner counties have as their priority the training of cadres in the field. The region has established a forestry institute for cadres to specially train forestry cadres for jobs in the leagues and banner counties.

Setting Forth the Grand Plan Once Again

The plan of Nei Monggol is for the region to have its forest cover rate go from the present 13 percent to 20 percent by the end of the century. The grassland area should go from the present 20 million mu to 70 million mu. This should bring the grassland area into rough parity with grain area. In the coming decade and more, the yearly increase in grassland and forest should be around 15 million mu.

The region's CPC committee has placed primary stress on developing grasslands and forests. Primary authorities in each of the leagues and banner counties have made the situation in planting grasses and forests into an important part of examinations and official promotions. From leading cadres in the four areas of the regional committee, government, people's university, and government association down to the grassroots level, all must actively apprise themselves of the local grass and forest situations and assist in the resolution of problems encountered in actual work. Regional Party Secretary Zhou Hui [0719 1920] has earned the reputation as the "secretary who plants grasses and trees." He has actively stressed grasses as a primary activity. The broad mass of cadres and masses now say with full confidence, "The leadership stresses it; policies are appropriate; science and technology is keeping pace; there is great hope for the flourishing of forests and grasslands across the face of Nei Monggol!"

12303/12379
CSO: 4007/272

BRIEFS

PROVINCE GRAIN PROCUREMENT--As of the end of August, Shandong Province has purchased 4.96 billion jin of summer grain, which was 99.2 percent of the planned amount. The various localities in Shandong have recently implemented the spirit of the national congress in a conscientious manner, which guaranteed completion of the annual grain procurement task. In accordance with the requirement of the State Council that more grain by purchased in areas experiencing bumper harvests. It was decided at the recently convened provincewide grain work conference to motivate those localities, units, and peasant households which experience good harvests and crop surpluses to sell grain and make more contributions. A major reason why this year's summer grain task has been successfully completed is that we have rigorously implemented the grain-procurement policy set up by the province whereby the grain-growing households could purchase at parity price 6 jin of diesel or 80 jin of chemical fertilizer for each 100 yuan of grain sales to the state. In addition, we have conscientiously rectified the mistaken approach of making haphazard deductions from the money paid to the masses for grain sales, ensured that the policy was carried out whereby payment was made to the household which sold the grain, that the payment and incentive awards got to the households in question, and that payment was made at the time of sale. [Text] [Beijing NONGMIN RIBAO in Chinese 30 Sep 85 p 1] 12513/13045

CSO: 4007/63

SICHUAN

DIFFICULTIES IN REGULATION COTTON, HEMP PRODUCTION OUTLINED

Chengdu SICHUAN RIBAO in Chinese 4 Apr 86 p 2

[Article by Mu Bingsheng [3018 3521 3932]: "Analysis of 1986 Cotton and Hemp Production and Marketing in the Province"]

[Text] The production and marketing picture for cotton and hemp in Sichuan Province was good during 1985, with an estimated 1.8 million dan of cotton having been purchased, and production and marketing having been substantially in balance. Procurement of jute and ambari hemp reached an all-time high, and the marketing situation was good, too. Ramie was much sought after; production of short fiber cotton was more than 200,000 dan; production of crude cottonseed oil was nearly 2,000 tons; and products sold briskly. On the other hand, there were also some problems that merit attention, one of which was a reduction in the cottonfield growing area during 1985, which when taken together with the adverse effects of bad weather, caused low outputs and poor quality. Peasants lost between 30 and 40 yuan per dan of cotton. Second, output of third grade and higher textile cotton could not meet market demand, while for fourth grade and below cotton, supply was greater than demand. Third, places not having ready access to transportation had approximately 1 million dan of jute and hemp that could not be easily transported for sale. Fourth, ramie enjoyed brisk sales, but the market was erratic. Fifth, 200 million jin of of cottonseeds throughout the province were not processed to the full. Consequently there was a shortage in markets of cottonseed oil and short fiber cotton.

During 1986 the overall situation throughout the province for the production and marketing of cotton and hemp is as follows: Despite intentions to stabilize cotton production, stabilization did not take place, and despite a desire to control production of the "three hemps" [ambari, jute, and ramie], control proved impossible. A look at cotton production shows that as a result of the natural disasters during 1985 that decreased cotton output, cotton farmers had reduced earnings. Thus, they were not very keen about farming, so during 1986 there was a general reduction in the cottonfield area in cotton growing counties. In some counties, the cut in cotton growing acreage was by about half. As a result, it was difficult to stabilize output of cotton during 1986. A look at cotton textile production shows output of pure cotton manufactures to have increased and uses to have expanded, and the amount of textile cotton required to have increased. It became difficult to satisfy needs of the cotton industry for cotton solely from the province's own cotton production. During 1985, prices for jute and ambari hemp were high and sales brisk, so the peasants were anxious to grow hemp. It is expected that there will be little increase during 1986 in amounts sold inside China, that the export market will not be brisk, and thus that output will be greater than sales. Nevertheless, quite a few areas still plan to expand their jute and ambari hemp growing area, so it is difficult to control production. During 1985, sales of ramie brightened after a slow start and prices increased many fold. Many places consequently expanded their growing area. A "craze for ramie" has taken place, which unless properly controlled will causes losses.

In view of the foregoing, departments concerned in the province have called for the stabilization of cotton production at 3.5 million dan in 1986 and the control of jute and ambari hemp at 2 million dan. Ramie production should be based on domestic requirements, the amount of output based on anticipated sales. There should be an expansion of the complete use of cottonseeds and continued attention to "two excellences" in the supply of cotton.

9432
CSO:4007/378

GUIDELINES FORMULATED FOR HEMP PURCHASING PRICES

Chengdu SICHUAN RIBAO in Chinese 27 Sep 85 p 2

[Article: "Sichuan Province Formulates Pricing Guidelines for Hemp Purchases"]

[Text] Hemp is a hot-selling cash crop of the rural areas of Sichuan, "the land of plenty," and is an important industrial raw material and export item. It is estimated that gross output provincewide this year will amount to 4.5 million dan, which is a 125-percent increase over the previous year. Purchases provincewide will be 3.2 million dan, of which 2 million dan will be purchased by supply and marketing cooperatives, an amount double that of the previous year. In addition to the consumption needs of six large-scale factories in this province amounting to 500,000 dan, and 1 million dan allocated and transferred outside the province, approximately 1.5 to 2 million dan provincewide must find their way to "the husband's family," and radiate from the province. It is estimated that nationwide production of hemp this year will amount to 50 million dan, which is about double that of the previous year, and of which production in Henan accounted for 40 percent, Anhui, Hubei, and Guangdong were in second place, and Sichuan accounted for only 9 percent. Therefore, production will exceed sales nationwide, the whole market will shift from hot to warm, and the sellers market will change to a buyers market.

In order to guide production in a planned manner, enliven purchasing and selling, and stabilize the market, the provincial pricing bureau and the provincial supply and marketing cooperative recently sent out a notice offering guidance for purchase prices for hemp brought into the province: all farmers and businessmen who sign purchase and sales contracts may make purchases for the various grades respectively at negotiated prices which are not lower than last year's state list prices, namely, grade one, 50 yuan per dan; grade two, 46 yuan; grade three, 43 yuan; and grade four, 40 yuan. The notice indicated further that purchases could be made of hemp of various grades which is not under contract for the median standard price, and the price could float upward not to exceed 10 percent, or float downward not to exceed 15 percent; the quality for each grade should be based on that stipulated by the provincial supply and marketing cooperative during former times when two classes were administered; the marketing price of hemp will be set by the supply and marketing cooperatives of the various counties (cities) in line with the principle of operating at a slight profit. All the supply and marketing cooperatives and other business units should implement the guiding prices set by the province.

12513/13045
CSO: 4007/63

COTTON PURCHASING MEASURES OUTLINED

Chengdu SICHUAN RIBAO in Chinese 27 Sep 85 p 2

[Article by Provincial Cotton and Fibers Corporation: "What Are the Provisions This Year for Purchasing Cotton?"]

[Text] The new cotton crop has now gone on the market. In accordance with the relevant policies of central government and the province, cotton purchasing will be carried out this year based on the following provisions:

1. Because we have contracted for cotton purchases this year, the cotton-purchasing departments of each locality will rely on the provisions of the purchase contracts or cotton sales certificates regarding quantity, quality and price, and made purchases based on a "straight 4:6" ratio purchase price (40 percent based on the added price and 60 percent based on the state list price); 2.5 jin of chemical fertilizer will be awarded for each jin of cotton, and the accounts will be settled as purchases are made.

2. Cotton sold to the state in excess of the amount contracted for, and cotton not covered by purchase contract or sales certificate, will be purchased at the list price, not the added price, and there will be no chemical fertilizer awards. When the purchasing period begins, this portion of the cotton will be handled by the various counties on their own, based on whether the contracted amounts have been fulfilled; no adjustments will be made or substitutes accepted for cotton-growing and production units which cannot fulfill contract purchase amounts.

3. We must rigorously inspect cotton purchases and not allow the prices to be forced down by lowering the grade or forced up by inflating the grade. Regardless of whether the cotton is covered by purchase contract or not, it must without exception be handled according to the standards and inspection methods provided for by the state.

12513/13045
CSO: 4007/63

PROTECTION OF IRRIGATION PROJECTS URGED

Chengdu SICHUAN RIBAO in Chinese 6 Oct 85 p 1

[Commentary: "Conscientiously Protect Irrigation Works"]

[Text] Letters from readers published in the paper today report that irrigation works are being destroyed, resulting in reduced agricultural output. It is our understanding that destruction of irrigation works is even more serious in a number of areas other than the two reported in this paper. This serves as a reminder to the people: we already have reached the point where there is great urgency to employing forceful measures, resolutely checking behavior which destroys irrigation works, and conscientiously protecting such projects.

Irrigation is an important material base for developing agriculture. Since the founding of the PRC, Sichuan Province has invested a great amount of financial, material and human resources in water conservancy work, and all told has completed many irrigation projects which have played a significant role in promoting the expansion of agricultural production. A major reason why we have been able to bring about steady increases in output throughout the province in recent years is that after applying the responsibility system to agriculture, the accumulated production potential brought about through water conservancy construction over the past several years has been brought fully into play. The role of cropland irrigation and water conservancy works cannot be underestimated. Because the rainfall season in Sichuan does not coincide with the season when the crops require water, and due to uneven regional distribution, drought, and flooding--in particular frequent dry conditions--affecting 60 percent of the vast hilly regions throughout the province, a pausity of key large and mid-sized irrigation projects, and a weak ability to combat a drought, this year some areas experienced reduced output as a result of dry weather during the hot season and this shows that water conservancy in the province has yet to meet the test. The "Seventh 5-Year" Plan clearly stipulates that we must "continue to maintain steady increases in grain production," and the water conservancy issue appears all the more important in light of this. Only if we value highly and consolidate our present achievements in cropland water conservancy construction, and at the same time continue to build water conservancy projects and enhance cropland capital construction will we be able to adapt to the new requirements of agricultural development. The leaders of some localities in recent years have paid special attention to township and town enterprises, which was essential.

However, "feeding and clothing 1 billion people is a great economic problem for the nation, and is a great political problem as well. We cannot take lightly the maxim that 'Without grain there would be chaos.'" Therefore, we definitely must correct the lopsided understanding which neglects agriculture and ignores water conservancy work.

There are many reasons why irrigation projects have been destroyed, important among which is that they have been poorly managed, no one has taken responsibility for them, and little effort has been made to prevent destructive behavior. For this reason, we must make the cropland water conservancy responsibility system a component part of the agricultural production responsibility system, conscientiously emphasize it, and bring it to fruition. We must implement unified leadership with respect to projects which span several counties, districts, villages, or hamlets, closely coordinate irrigation districts in each region, and delineate responsibility.

Irrigation works enrich the nation and the collectives, and receive legal protection. The State Council, provincial people's government and concerned departments at the national level one after another have issued reports, regulations and provisions regarding the protection of irrigation works, and all these are forceful weapons which strengthen water conservancy management. In order to protect irrigation works we must rely on legal means to regulate rivers and watercourses. Each locality should conduct investigations of instances of destruction of irrigation works and deal seriously with problems which have already occurred, whereby those who have damaged such irrigation works pay for them; those who have violated the criminal law should be dealt with in accordance with that law, and they should not be indulged under any circumstances. At the same time, we must spread propaganda among the broad masses of peasants and educate them concerning the legal system, bring them to observe discipline, abide by the law, and conscientiously protect irrigation works.

Autumn and winter have always been an opportune time to store water, preserve moisture, and engage in cropland capital construction, so all localities should unite to draw up the agricultural production plan for next year, as well as a plan for water conservancy projects, and mobilize the masses to protect and actively repair irrigation works, thus making new contributions toward steady increases in next year's agricultural output.

12513/13045
CSO: 4007/63

TIANJIN

CHANGES IN CROP PATTERNS REPORTED

Beijing NONGMIN RIBAO in Chinese 19 Apr 86 p 2

[Article by Zhang Shixiong [1728 1102 7160]: "New Changes in Farming Structure in Suburban Tianjin This Year. Grain Crop Growing Area 5.2 Percent Larger Than in 1985; Trend Toward Diversification of Varieties Farmed"

[Text] After the state reformed the systems of centralized procurement and assigned procurement of agricultural products, peasant enthusiasm for grain farming was aroused. What plans have the peasants made this year for the growing of agricultural crops? Results of a recent sampling of 950 peasant households in Tianjin show the peasants to have an appreciation of the significance of erratic grain production. The grain growing area is larger than in 1985 and the trend is toward diversification in varieties farmed.

The grain growing area is 5.2 percent larger this year than in 1985. This includes not only a 2.2 percent increase in summer crops, but a 6.6 percent increase over 1985 in the fall crop growing area as well. However, the make-up of the fall grain crops differs from that of previous years. In view of the improved availability of water during the spring of 1986, most peasants have readjusted the crop mix for 1986 emphasizing the growing of crops that have a high nutritional value and produce good economic results, growing pulses instead of coarse grain crops. They have increased 1.16 fold over 1985 the growing of rice from directly planted seedlings, and they have increased by 8.8 percent the growing of intermediate late rice. Since corn prices are higher than sorghum prices, 9.1 percent more corn will be planted in 1986 than in 1985. The growing of sorghum will be increased by only 2.8 percent. Most peasant households lacking conditions for the growing of paddy will increase the growing of soybeans. Not only do soybeans have a high nutritional value, but they can also increase earnings and can be exchanged for rice. The soybean growing area will increase 14.2 percent in 1986.

Results of the survey also show the continuation of a downward trend for cotton. In 1986, 28.9 percent less cotton will be grown than in 1985. As for oil-bearing crops, except for a 16.5 percent increase in the growing of peanuts, the peasants' inclination is to grow less sesame and sunflowers.

The state has liberalized prices for vegetables, so the growing area will continue to expand. Growing of vegetables will increase by 9.8 percent, and the growing of melons and fruits will increase by 5.1 percent. The growing area for fine vegetables is to increase 10 percent. In expanding the vegetable growing area, vegetable farmers will not only be themselves self-sufficient and improve their own livelihoods, but they will also be able to sell fresh vegetables to communes ahead of the season, increasing their earnings.

9432
CSO: 4007/396

RAPID DEVELOPMENT IN FOOD INDUSTRY REPORTED

Kunming YUNNAN RIBAO in Chinese 4 Jan 86 p 1

[Article by Shao Zi [4801 3356]]

[Text] During the Sixth 5-Year Plan, Yunnan's food industry developed very rapidly, and in addition to further development in tobacco, sugar and tea, the three products for which we have an advantage, areas everywhere restored and successively developed the production of over 350 kinds of traditional and specialty food products. The total output value for the food industry in 1985 could reach 3.6 billion yuan, equal to a 2.4-fold increase over 1980.

According to statistics, during the Sixth 5-Year Plan, various governmental levels and food industry enterprises have successively invested 100 million yuan in supporting the production of products for which we have an advantage and of traditional and specialty products, and they have already completed the transformation and introduction of enterprise technology for over 130 projects. In 1985, food industry businesses in Kunming introduced production lines for bread rolls, ice cream and dried cakes.

Added to the fact that concerned departments at various levels have reduced or exempted taxes for certain enterprises in line with the spirit of the national government of opening up policies for the food industry, the transformation of enterprises and introduction of technology has mobilized the enthusiasm of food enterprises and their workers and staffs, and promoted the development of production. Up to the present, the province has restored over 180 traditional and specialty products such as elephant ear cakes, lion cakes, perillaseed plums, preserved peaches, and preserved pineapple; there are over 170 newly developed products such as cherry milk powder for infants, rice flour health foods, iron and vitamin C tablets, eight types of Yunnan pastries, instant noodles, pollen foods, margarine, and so on, which are in great demand in Yunnan and other provinces, and warmly welcomed by the masses. In November 1985, in the comparison and assessment of the province's food products, 27 traditional and local specialty food products were judged as superior provincial products. Powdered whole sweet milk, Yunnan grade A green tea, Yunnan grade B tea, rose liquor, white wine, petite champagne (produced in Kunming and Dongchuan) have all won the high opinion of customers.

12452
CSO: 4007/253

EXPANSION OF TROPICAL CROP GROWING AREA OUTLINED

Kunming YUNNAN RIBAO in Chinese 7 Apr 86 p 2

[Article by Correspondent Shu Ping [6615 6097]: "Make Full Use of the Role of the State Farm and Land Reclamation System in Developing Tropical Areas"]

[Text] Simultaneous with the provincial state farm and land reclamation system' full use of torrid zone resources, of natural advantages provided by the southern semi-tropics, and of soil resources, with emphasis on development of rubber production, has been active readjustment of the industrial structure and vigorous expansion of the growing of tropical cash crops needed by both domestic and foreign markets, such as coffee, southern medicinal herbs, pepper, sugarcane, tropical fruits, spices, and large-leaf tea varieties. As of now, more than 130,000 staff members and workers on 38 state-owned farms throughout the system have reclaimed 1.49 million mu of land, including 970,000 mu for rubber, more than 160,000 mu for other tropical cash crops, more than 90,000 mu for grain, and more than 50,000 mu for forests. Good results have been obtained despite severe damage to rubber trees in 1985 from cold weather and powdery mildew disease, which delayed the tapping of rubber and occasioned a loss of more than 2,000 tons of latex during the initial period and the condemnation of more than 20,000 mu of rubber trees, plus the loss of more than 6 million mu of sugarcane due to freezing. The gross output value of industry and agriculture reached 287.41 million yuan, a net increase of more than 17 million yuan and profits of 40 million yuan more than in 1985. Figured in terms of constant 1980 prices, gross output value for a 5 year period averaged a more than 10 percent increase. This included a doubling of gross output value during the 5 year period by 12 farms, including Dongfeng Farm, and the Lincang Machinery Manufacturing and Repair Plant. Gross output value during the 5 year period quadrupled for six units at the Jiangcheng Farm.

A vast tropical and southern sub-tropical area exists in Yunnan Province containing abundant resources and very great advantages. Its active development would be an extremely important way in which to build up the border region, make the economy flourish, change backward conditions in mountain regions, and move fraternal nationalities in the torrid zone along the road to riches. Surveys show approximately 2.5 million mu in the province's torrid zone as capable of growing rubber. Personnel concerned have suggested unified planning for the development of 2 million mu of rubber throughout the province during the Seventh 5-Year Plan, including 1.2 million mu operated by the state, 500,000 mu run by the civilian sector (the civilian sector currently grows more than 100,000 mui), and 300,000 mu under joint state and collective management. In addition to rubber, coffee, sugarcane, southern medicinal herbs, fruit, and large-leaf tea varieties may be developed. The state farm and land reclamation system has already developed a farming industry on more than 1.27 million mu. Not much land remains once the roadway, housing, and water surface areas have been subtracted. Many places in the province can devote major efforts, however, to the development of southern semi-tropical crops. The natural environment in tropical areas is relatively complex, and the growing of tropical crops is also a new venture. Development, use, control, and protection must be given full consideration in developing the country's land for use. They are part of an indivisible whole. Protection is for the sake of development for use, and development for use must be concerned about protection. Consequently, centralized and rational planning must be applied so that use, control, and protection are unified, thereby gaining unified economic, ecological, and social benefits. The province's state farm and land reclamation system possesses abundant technical forces and administrative and managerial strength. In the development of tropical and southern semi-tropical resources throughout the province, serious attention must be given to the role of the state farm and land reclamation system, which seemingly can provide services in several areas as follows: First is crop zoning and planning for tropical area development, as well as zoning work for the growing of rubber on small plots, for which design departments in the state farm and land reclamation system can provide consultation and services. Second, the provincial tropical crops research institute and the tropical crops technical promotion stations at various farms can provide technical guidance on the farming of various tropical and southern semi-tropical crops. Third is to make available administrative and managerial experience. Fourth, the provincial tropical crops school and the provincial tropical crops research institute can take responsibility for the training of medium level tropical crops scientific and technical personnel and staff members. Fifth, the state farm and land reclamation system can provide fine varieties of rubber and other tropical crops for planting.

9432
CSO:4007/396

PRODUCTION, CONSUMPTION OF PORK ON RISE

Hangzhou ZHEJIANG RIBAO in Chinese 31 Mar 86 p 2

[Article by Chai Mabiao [2693 7456 2871] and Yu Fuchang [0205 4395 9480]: "Results Apparent Following 1 Year Liberalization of Hog Prices. All-Around Resurgence in Numbers of Hogs in Inventory; Marked Increase in Pork Consumption"]

[Text] A recent survey shows an all-around resurgence in the number of hogs in inventory in Zhejiang Province, a marked increase in pork consumption, and plentiful supplies of pork in markets. Liberalization of prices paid for live hogs has paid off.

Live hog purchase prices have been liberalized in the province for nearly 1 year, and according to extrapolations made from a post-lunar New Year survey of 240,000 peasant households, the number of hogs in inventory throughout the province has reached 12.2 million, 10 percent more than during the same period in 1985. The survey showed a 5.9 percent increase over 1985 in the number of rural households raising hogs, the average number of hogs raised per household having risen from 1.8 head in 1985 to 1.95 head in 1986. Total number of hogs in inventory, numbers of boars, sows, shoats, and porkers in inventory have increased over 1985 by 10.8, 31.2, 20.5, and 6.5 percent respectively. Today, the province's more than 60 counties and municipalities show varying degrees of increase over the same period in 1985 in the numbers of hogs in inventory. Increase in production has spurred consumption. In 1985, consumption of pork by town and city residents throughout the province was more than 1.2 billion jin, or 30.75 jin per capita, up 3 and 1/2 jin from 1985. As a result of the rather good basis for production, a larger number of mature hogs can be supplied to markets during the second quarter of the year. Mature hogs weighing 70 jin or more throughout the province currently number 3.76 million, a 430,000 net increase over the same period in 1985. Particularly noteworthy is that the number of mature hogs available for marketing in the short term is double the number for the same period in 1985.

The main reasons spurring expansion of hog production and increase in pork consumption in Zhejiang Province have been the abolition of assigned procurement. a liberalization of prices paid for hogs, and allowing free sales, free marketing, and the use of many channels with few links in making sales, which have spurred peasant enthusiasm for hog raising. At the same time, leaders at all levels have devoted serious attention to production, circulation, and effective measures. Places in which industrial sideline occupations have developed more rapidly have experimented with "use of industry to assist livestock raising," "farming, industry, livestock raising, and business" as part of a totality, and "planning in industrial plants for the raising of hogs at home" to set up hog raising workshops. They have actively promoted evaluation systems for rural cadres' positions, have adopted measures to encourage rural hog raising, have made people feel more confident about raising hogs, and have used the traditional method of raising hogs in scattered rural households as a basis for providing support to households specializing in hog raising and the promotion of multi-level hog raising linking industrial plants and peasant households.

9432
CSO:4007/378

END

JPRS-CAG-86-023

12 JUNE 1986

China Report

AGRICULTURE

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-023

12 JUNE 1986

CHINA REPORT

AGRICULTURE

CONTENTS

PEOPLE'S REPUBLIC OF CHINA

NATIONAL

He Kang Discusses 1986 Ministry Work
(He Kang; NONGCUN GONGZUO TONGCUN, No 2, 5 Feb 86)........ 1

Food Industry Developments in 7th 5-Year Plan Discussed
(ZHONGGUO XIANGZHEN QIYE BAO, 5 Feb 86).................... 5

Rules for Implementing Forestry Law Promulgated
(XINHUA, 14 May 86).. 7

Problems in Producing Fiber Plants Discussed
(NONGMIN RIBAO, 15 Feb 86)................................. 14

Importance of Sorghum Production Discussed
(Wang Fude, Shi Xiaoda Editorial; NONGMIN RIBAO, 31 Mar 86).. 16

Improved Water Works Help Spring Production
(Cui Lisha; XINHUA, 6 May 86).............................. 18

Sugar Beet Production Outlook Assessed
(Zhang Shouzhun; NONGMIN RIBAO, 6 Mar 86).................. 19

More Peasants Relieved From Poverty
(XINHUA, 13 May 86).. 21

Factors in Revising Planting Composition Discussed
(Shu Ping; NONGMIN RIBAO, 14 Feb 86)....................... 22

Briefs

Loans for Rural Poor 26
Modernized Rice Stock Production 26
Loans for Peasants 26
Watermelon Area Increases 26
Northern Shelterbelt To Be Extended 27
Think Tank Aids Farmers 27
Agricultural Testing Centers 27

TRANSPROVINCIAL AFFAIRS

Forum Discusses Rural Development of Northeast Economic Zone
(DONGBEI JINGJI BAO, 5 Apr 86).............................. 28

Briefs

Bigger Wheat Harvests 30

ANHUI

Governor Cites Importance of Summer Grain Harvest
(Anhui Provincial Service, 11 May 86)...................... 31

Audits Reveal Numerous Crimes in Grain System
(Wei Youwen; ANHUI RIBAO, 3 Feb 86)........................ 33

Meeting Stresses Flood, Drought Prevention
(Anhui Provincial Service, 13 May 86). 35

Tighter Control Over Land Management Urged
(ANHUI RIBAO, 13 Feb 86).................................... 37

Use of Feed Sources To Develop Animal Husbandry Discussed
(Wang Zaikun; ANHUI RIBAO, 3 Mar 86)....................... 39

Development of Aquatic Industry Urged
(Zhang Jinjian, Lu Liejia; ANHUI RIBAO, 14 Feb 86)........ 41

Full Use of Agricultural Resources Required
(Li Guangheng; ANHUI RIBAO, 27 Feb 86)..................... 44

Tighter Control of Seed Distribution Needed
(ANHUI RIBAO, 6 Feb 86)..................................... 47

Specialized Households 'Need Greater Specialization'
(Wang Shiju; ANHUI RIBAO, 3 Feb 86)........................ 49

BEIJING

Food Industry Developments Reviewed
(BEIJING RIBAO, 11 Feb 86).................................. 52

Water Conservation Measures Urged
(Xu Yuanchao; CHINA DAILY, 17 May 86)...................... 54

Gansu People's Deputies Stress Grain Production
(Gansu Provincial Service, 11 May 86)...................... 56

Briefs
EC Aid to Gansu 57

GUANGDONG

Prices, Supplies of Peanut Oil, Rice Reported
(Guo Hanjin; GUANGDONG NONGMIN BAO, 19 Mar 86)............ 58

More Family Farms Reported Begun on State Farms
(He Zhenlu, Cheng Xiaoqi; GUANGDONG NONGMIN BAO,
19 Mar 86)... 60

HEBEI

Construction Bureau Director Interviewed on Water Management
(HEBEI RIBAO, 13 Jan 86)................................. 61

Responsible Comrade Interviewed on Grain, Oil Procurement
(Jiao; HEBEI RIBAO, 7 Jan 86)............................ 64

HEILONGJIANG

Sun Weiben Visits Agricultural Institute
(Heilongjiang Provincial Serivce, 17 May 86).............. 68

Goals Set for 'Spark Plan' for Next 2 Years
(Heilongjiang Provincial Service, 5 May 86)............... 69

Aquatic Breeding Developments Discussed
(HEILONGJIANG, 24 Feb 86)................................. 71

Briefs
Drought Reported 73
Wheat Sowing Nearly Complete 73
Spring Farming Revived 73

HUNAN

Estimates Made for Major Farm Crops
(Qu Yunbing; HUNAN NONGYE, 1 Jan 86)...................... 74

Briefs
Rapeseed Harvest 76
Fishery Finance 76

JIANGXI

Ni Xiance Heads Jiangxi Land Improvement Team
(Huang Zhenggen, Xiong Dianda; XINHUA, 19 May 86)......... 77

Briefs

Grain Enterprises Increase Profits 78

JILIN

Briefs

Specialized Households Increase 79
Agricultural Exports 79
Grain Purchasing Contracts 79
Jilin Spring Farming 79

JIANGSU

Briefs

Domestic Cotton Imports 80

LIAONING

Reform Motivates Liaoning Peasants To Study
(XINHUA, 15 May 86).. 81

NINGXIA

Briefs

Ningxia Sheep Farming 82

QINGHAI

Qinghai Commentary on Improving Animal Husbandry Conditions
(Qinghai Provincial Service, 7 May 86).................... 83

SHAANXI

Government Adopts Measures To Expand Pork Sales
(Shaanxi Provincial Service, 11 May 86)................... 85

Briefs

Shaanxi Pig Procurement 86

SHANDONG

Rural Women Benefit From Technology
(XINHUA, 21 May 86).. 87

Briefs

Farm Machine Sales 88

SHANXI

Shanxi Governor on Agriculture, Lateral Ties, Poor Areas (Shanxi Provincial Service, 9 May 86)..................... 89

Cotton Output, Procurement Prospects Discussed (Qiao Fengbao; SHANXI NONGMIN, 15 Mar 86)................. 91

TIANJIN

Briefs

Tianjin Peasants' Livelihood Improved 93

XINJIANG

Xinjiang Fulfills Grain, Oil Purchase Quota in Advance (Xinjiang Regional Service, 8 May 86)..................... 94

YUNNAN

Decision To Raise Agricultural Investment Reported (RENMIN RIBAO, 11 Mar 86)................................. 95

Summary of Provincial Resolution 95
Commentary on Local Mobilization 96

Kunming Meeting Reaffirms Policy on Households Getting Rich (Yunnan Provincial Service, 29 Apr 86).................... 98

Briefs

Tea Exports 100

/12675

HE KANG DISCUSSES 1986 MINISTRY WORK

Beijing NONGCUN GONGZUO TONGCUN [RURAL WORK NEWSLETTER] in Chinese No 2, 5 Feb 86 pp 9-10

[Article by Minister He Kang of the Ministry of Agriculture, Animal Husbandry, and Fisheries: "Ministry Work for 1986: Reform, Readjustment, Improvement, and Service"]

[Text] Priority work for the Ministry of Agriculture, Animal Husbandry, and Fisheries comprises: reform, readjustment, improvement, and service. That is, premised upon steady intensification of reforms, we shall guide farmers in the continued readjustment of the structure of production, ensure stable increases in grain, stress improvement in product quality and economic returns, conscientiously restructure township and town enterprise, shore up service organizations at all levels, vigorously expand services, and persist in the favorable trend toward comprehensive development of agriculture, animal husbandry, fisheries, reclamation, and township and town enterprise.

1. Continuing readjustments in the structure of production: An important lesson is this that it should proceed comprehensively from actual local conditions, domestic and foreign market demands, and development of the national economy. The pace of readjustment should be appropriate, blindspots avoided, and haste and overheating should be prevented. We cannot construe the readjustment one-sidedly as reduction in grain area alone. The readjustment should be based upon the production sector and comprise three levels: that of planting (of grain, cash crops, and feed and green-manure crops), that of agriculture (farming, forestry, animal husbandry, sidelines, and fisheries), and that of rural production (rural industry and mining, commerce, transportation, construction and building materials, tourism, and various services). Sectors to be readjusted comprise planting area, allocation of varieties, capital investment, labor arrangements, and product quality. All areas should first, at the county level, conduct a survey of agricultural resources and separate out the various sectors. With that as a foundation, they can draft local structural readjustments and comprehensive development plans, and fully bring out the advantages the area's labor and resources have to offer.

2. Move vigorously to reattain 1984 levels for total grain output: The nation's total grain output in 1990 should reach 900 billion jin.

How grain goes this year will have a great impact on implementation of the goals of the Seventh 5-Year Plan. This year we should move vigorously to reattain the 1984 level of 810 billion jin. This target is a necessity for the nationa as a whole. Increasing output this year is likely; reattaining 1984's output will be more difficult. But it is still feasible if the grain policies of the Politburo are conscientiously implemented and effective measures to increase output are adopted. Thus, we should strive to achieve it. There is neither demand nor possibility that all regions will reach those levels. Those which had increases last year should continue to have them; those in which production was down somewhat should reattain or surpass 1984 levels; those with extensive reductions last year should show a rise and strive to make that rise a little larger.

Responsibility for solving the grain issue should pass through the provincial (municipality region), prefecture, and county, to the township level. It should proceed from actual circumstances and tailor requirements to differing circumstances in carrying out procurement, allotting assignments, and linking cash to grain. A grain-production arrangement which shows a gradual regional and local balance should be stressed. The state will delineate sectors to have relative balances for grain production and sale; and directions of movement for grain (comprising varieties and amounts) should be relatively stable. Provinces and regions should adopt a similar method. The ministry and its provincial, municipal, and regional departments should coordinate with the relevant sectors to bring about plans for regional and local balances.

The major trend is toward stable grain production. The priority is on building a quality rice base in the middle and lower Chang Jiang basin, an export base for corn and soybeans in the northeast, and a high-quality wheat base in the north and Henan. Those regions bringing in grain should have their own provincial and regional commodity grain bases and upgrade their own self-sufficiency.

3. Further stimulate farmer enthusiasm to develop the livestock industry: Potential for this is great in both farm and pastoral areas, and the policy will continue to be toward large-scale development. This is already the case for livestock in farming areas. We should concentrate on integrating farming and animal husbandry, make full use of regional feed potential, and affirmatively develop the animal husbandry in farming regions. The key to motivating ranchers in grazing regions to develop the industry lies in implementation of the grasslands laws and creation of a responsibility system.

Rapid setup of pasture lands in the nation's major livestock areas and of animal husbandry bases is urgently needed. We should not only make the serious task of management of state lands part of the state's basic construction, but even more important, mobilize the ranching population to establish pasturelands,and develop enthusiasm for the livestock industry. The state, localities, businesses, collectives, and farm and ranch populations can all be involved in accumulating funds to speed up the pace of construction.

Politburo policies calling for gradual deregulation of livestock products should be firmly and conscientiously implemented. Only if prices are deregulated can development of local livestock and processing industries be promoted and local revenues increase. Positive measures should be adopted and facilitated so as to normalize production and circulation of livestock products.

Quality supervision for feed should be strengthened. All provincial, municipal, and regional agricultural and animal husbandry departments must make real efforts in quality supervision. The ministry has already joined with 24 provinces and municipalities to invest in the establishment of feed-supervision organs which are already in operation. This work should continue to be done competently and not allowed to be attenuated.

4. Management of town and township enterprise should be strengthend: They should be overhauled and special attention paid to improving the product quality. Quality brings goodwill, which in turn brings development. Picking up the pace of technical transformation, training of specialists, and stress on product quality control is done to improve the character of the enterprise and the quality of its products while sharpening its competitive edge. The speed of development of twonship and town enterprise and the level of credit support should be based upon the locality and the type of enterprise; and methods should be flexible. Management in these enterprises should shore up all their service systems, such as operations, information, technology, and supply and sales, strengthen management overall, and guide the enterprise toward sound development.

Based upon the spirit of Politburo and State Council 1984 Document No 4, township and town enterprises fall under the primary management of township and town management departments at all levels. These enterprises include those run by townships and villages, cooperative ventures jointly run by farmers, and other forms of rural cooperative and individual ventures. All fall within the purview of the various levels of the Township and Town Enterprise Bureau. All levels of the bureau should conscientiously and responsibly carry out their management of township and town enterprise in accordance with the directives of the central leadership documents and the spirit of leadership of leading comrades. They should also take heed of directions by departments in the relevant industries. They must not make changes in lines of command or in their collective or individual character.

5. Reform of operational management systems in state farms: We should continue to go forward with reform of farm operational management systems and bring them into line with the new look of smaller farms. The trend in reforming farming and reclamation is toward a distinction between government and enterprise, less government, more liberal rights granted to enterprises, and revitalization of enterprises. The task on the farm and reclamation front can be summed up by saying that gradually, through reforms, state farm construction will consist of three bases and one center. One is stabilization of commodity production for domestic and

foreign trade. A second base is a demonstration of farm specialization, commercialization, and modernization. Third is production and supply of farm food products to large cities and industrial and mining regions. The center consists of the service to the countryside of advanced technology, promotion of improved strains, processing, transportation, and sale of farm products. This center serves not only the state and workers of the farm, but the whole local population as well.

6. A big breakthrough in aquatic products: During the Seventh 5-Year Plan, efforts should focus on breakthroughs in the following areas. This year's efforts should approach these areas. First, a breakthrough in cultivation and yields on the broad mass of ponds and in the exploitation and utilization of large andmmid-sized bodies of water and coastlines. Commodity fish bases to supply cities set up should be primarily in suburbs and in the major supply regions. There should be commodity export bases for well-known, unique, preferred, and new breeds, with the focus on such new leading products as shrimp, river crabs, anadromous fish, and luo fei yu [5012 7236 7625]. A second breakthough is needed in preserving freshness and processing, and in improving quality. There has been a rather major change in the way seafood commodities are viewed, toward urban supply of fresh live, fresh iced, small-packaged frozen, and convenience-packaged seafood, along with top-grade products for the international market. The third breakthrough should be in market management, in search of laws of market adjustment which meet socialist conditions, perfection of channels, reduction in links, and a more loosely regulated circulation system for aquatic products. The fourth breakthrough should be in coordinated reform of economic systems in fish-producing regions and in establishment of a spiritual civilization. Fifth is management of coastal fishing and in replicating resources. Sixth is a new breakthrough in pelagic fishing.

7. Strengthen establishment of service systems and service forces. First service systems must be set up at the state, collective, joint farmer, and individual farmer levels. Through such services, dispersed cottage operations can be gradually brought into the planned economy, with at tendency toward a highly diversified cooperative economic sphere. Second, entrepreneurially operated entities should continue to be supported. Third, these entities should be geared toward services. They are poorly capitalized and low margin, and suffer many difficulties. It is recommended that they be treated with tax incentives such as given to similar entities under the Ministries of Education and Water Conservancy; and it is my hope the Finance Ministry will support them with some revolving funds.

12303/9835
CSO: 4007/305

FOOD INDUSTRY DEVELOPMENTS IN 7TH 5-YEAR PLAN DISCUSSED

Beijing ZHONGGUO XIANGZHEN QIYE BAO in Chinese 5 Feb 86 p 2

[Article: "Developments Envisioned for Food Industry During Seventh 5-Year Plan"]

[Text] According to reports in ECONOMIC INFORMATION, China's food industry will see major developments during the Seventh 5-Year Plan. Output value in 1990 (excluding tobacco and salt) should surpass 30 billion yuan--up more than 50 percent from 1985.

Development targets for the major sectors are initially envisioned as follows:

1. Sugar manufacture: Focus on sugarcane and sugar beet and implementation of a diversified source policy. Total edible sugar output should be between 5.5 and 6 million tons in 1990--double the 1980 figure. When added to imports, this amounts to a per capita consumption figure of 7.5 kg for the nation as a whole. At the same time, there will be increases for such varieties as refined, restaurant use, cubed, liquid, and individual packaged sugar.

2. The dairy product sector: Focus on developments for cow's milk. Output of dairy products should go up in steps of about 16 percent per year, and reach 250,000 to 300,000 by 1990 and a monthly fresh-milk-processing capability of 9,000 tons. Regarding product makeup, the proportions for pasteurized, sour, and milk beverages should go up. There will be increases in output of dairy products geared to children and the elderly, ice cream powders [4720], and small-portioned yoghurt and butter.

3. The fermented liquor sector: Further development toward higher quality, lower alcohol content, and diversification of products. Total output in 1990 should be between 11.4 and 12.4 million tons, of which low-alcohol products shall account for two-thirds. Beer output should be between 5.5 and 6 million tons and wine output 300,000 tons. During the early part of the Seventh 5-Year Plan, efforts for beer will focus on the establishment of priority promotional measures which have already attained considerable scale. At the same time, technology for high-yield saccharification and rapid fermentation will be promoted. Efforts will be made to improve beer quality and variety, upgrade the market segment for premium beers, and cut back on low-quality beers (especially those with excess diacetyl content). There will be vigorous development of such new products as alcohol-free products, low-calories beers, and fruit-juice beers. Output of premium

sorghum whiskey should go from 180,000 tons in 1985 to 400,000 tons in 1990, or 10 percent of total sorghum whiskey output. There will be development of such new yellow-wine products as grain yellow wine, carbonated yellow wine, fruit-flavored yellow wine, and corn yellow wine.

4. Beverage sectors: A priority development sector in the Seventh 5-Year Plan should see a two-fold increase in 1990 over 1985 and reach 3 million tons of 15 kg per capita for urban populations. For carbonated drinks, automated bottling equipment must first be in place in the 130 cities with over 300,000 people. Based upon market demand, there will be development of clear, unstrained, and pureed apple, mandarin orange, grape, hawthorn, yangtao, and tomato beverages, various nonalcoholic fermented beverages, plant-protein beverages, and restorative beverages.

5. The food storage industry: Expansion from mere canning to a variety of storage techniques, affirmative development of quick-frozen products, and research into utilization of irradiation storage technology. The canning industry should develop a group of unique local products. As initially conceived, canning output should increase from the 1980 figure of 570,000 tons to between 2 and 2.5 million tons in 1990, with soft canning reaching 200,000 tons.

6. New fermentation industries. Rapid development of such new products as more favorful monosodium glutamate, compound food additives, and various amino acids. Output of citric acid in 1990 should reach 7,000 tons--a two-fold increase from last year. Yeast industry priorities lie in development of such new products as dry living yeast, feed-grain yeast, yeasts high in iron, vitamins, and nucleic acids for development of baby food and health food services.

12303/9835
CSO: 4007/306

RULES FOR IMPLEMENTING FORESTRY LAW PROMULGATED

OW202251 Beijing XINHUA Domestic Service in Chinese 0728 GMT 14 May 86

[Text] Beijing, 14 May (XINHUA)--Rules for the Implementation of the Forestry Law of the People's Republic of China (approved by the State Council on 28 April 1986 and promulgated by the Ministry of Forestry on 10 May 1986)

Article 1. These rules are formulated in accordance with the provisions of Article 40 of "The Forestry Law of the People's Republic of China" (hereafter referred to as the Forestry Law).

Article 2. Forestry resources include forest land and wild plants and animals in forest zones.

Forest includes bamboo groves. Woods include trees and bamboos. Forest land includes high trees with a canopy density of 0.3 or higher, sparse woodland, shrub land, slashes from logging, slashes from burning, sapling nursery land, and land defined in the state plan as suitable for afforestation.

Article 3. Provincial, autonomous regional, and municipal forestry departments are responsible for designating the forests in their regions according to their purpose as shelter, timber economic, fuel, or special-purpose forests, in accordance with the provisions issued by the Ministry of Forestry survey and classification of forestry resources and designation of forests.

The designation of major shelter and special-purpose forests under local management shall be recommended by provincial, autonomous regional, and municipal forestry departments, and be submitted to the people's governments at the same level for approval and promulgation. The designation of major shelter and special-purpose forests under state management shall be recommended by the Ministry of Forestry and be submitted to the State Council for approval and promulgation.

Article 4. Specific procedures for collecting forest cultivation fees and instituting a forestry funds system shall be formulated by the Ministry of Forestry and the Ministry of Finance.

Article 5. The departments of coal industry, metallurgical industry, paper industry, railways, transport, state farms and land reclamation, water conservancy and electric power, and urban construction should retain or set aside funds for afforestation and tree-planting, formulate procedures for the use and management of these funds, and ensure that they are used for the specific purpose only.

Article 6. The state shall extend low-interest, long-term loans for building and cultivating forests. The quota and interest rates of the loans shall be set by the People's Bank of China and be submitted to the State Council for approval and implementation.

Article 7. The people's governments at all levels should organize the people in performing the tree-planting obligation in accordance with "Procedures of the State Council for the All-People Obligatory Tree-Planting Campaign."

Article 8. Provincial, autonomous regional, and municipal forestry departments shall, in accordance with the arrangements of the people's governments at the same level and relevant provisions issued by the Ministry of Forestry, conduct regular surveys on forestry resources in order to provide a basis for formulating forest management plans, establishing forestry resources files, and setting logging ceilings. Provincial, autonomous regional and municipal forestry departments shall, according to actual needs, put forward plans for the establishment and staffing of local agencies for management, survey, and design of forestry resources, and submit the plans to the people's government at the same level for approval. Funds for operating these agencies shall be included in the local budget.

Article 9. If any state forest land is to be taken to meet the needs of surveying, construction projects, or mining, the following provisions should be observed:

1. The organization using the forest land should file a request with the people's government at or above county level for approval. The request must be based on a task or design plan approved by a high-level department in charge and be filed in accordance with the provisions of land management laws and regulations regarding the approving authorities and procedures. If more than 2,000 mu of forest land are to be taken, the request must be submitted by a provincial, autonomous regional, or municipal people's government to the State Council for approval.

2. If the organization using the forest land has to deforest that area, it should strictly abide by the felling and other relevant regulations, pile the logs in a place designated in the approving document, and turn them over to the forestry organization for disposal.

3. The organization using the forest land should compensate the forestry organization for the actual loss the latter has incurred. If forest land is to be taken for less than a year, the compensation may be properly reduced.

Concrete compensation procedures shall be formulated by provincial, autonomous regional, or municipal people's governments.

4. If a forestry organization is to build roads or other forestry-related projects on its forest land, construction should proceed in accordance with the approving document issued by a higher-level department in charge.

If collectively-owned forest land is to be taken over for use, the requisition should be made in accordance with land requisition regulations. If more than 2,000 mu of forest land are to be requisitioned, the order must be submitted by a provincial, autonomous regional, or municipal people's government to the State Council for approval.

Article 10. The area and boundary of land of various categories under the management and operation of forestry bureaus and state forest farms may be altered either with the consent of the original approving organs, or after the alteration is approved in accordance with the provisions of Article 9 of these rules. They may not be otherwise altered by any other organization or individual.

Article 11. Local people's governments at all levels should organize the departments concerned to institute and improve forest protection and fire prevention organizations according to actual needs, and be responsible for forest protection and fire prevention work.

Villagers' committees and state enterprises and institutions in forest zones should establish basic-level forest protection and fire prevention organizations, delineate responsibility districts, and implement a responsibility system.

In large forest zones, forest protection may be strengthened using aircraft and additional facilities.

In forest zones on the borders of different administrative regions, the local people's governments concerned should establish joint forest protection organizations to take on forest protection.

Article 12. When a forest fire breaks out, the local people's government must immediately organize armymen and people to actively fight the fire. The commerce, grain, supply, and public health departments should efficiently supply material and medical care. The railway, communications, civil aviation, and post and telecommunications departments should provide means of transport and telecommunications on a priority basis.

Article 13. When a forest disease or insect pest occurs, the management organizations and individuals concerned should remedy it in good time. If the forest disease or insect pest is serious, local people's governments should take emergency remedial measures to prevent it from spreading and eliminate the hidden peril.

Article 14. The national objective for the percentage of forest cover is 30 percent. Local people's governments at and above county level should set the objectives of their administrative regions for the percentage of forest cover according to regional topography--generally speaking, more than 70 percent for mountainous regions, more than 40 percent for hilly land, and more than 10 percent for plains.

The percentage of forest cover is the part of the forest area expressed in hundredths in the country or in a region. Forest area means the area of trees with a canopy density of 0.3 or higher, the area of economic forests, and the area of bamboo groves. Also counted in the forest area are the shrubland under special state stipulations, forests surrounding farmland, and trees planted near villages, along roads and streams, and by houses.

Article 15. To ensure quality, trees should be planted according to technical rules for afforestation and with a scientific approach.

County-level people's governments should seriously check afforestation results and verify the areas before accepting them. They should check at least 2 percent of the afforested areas, and the annual afforestation quota should not be considered a fulfilled if less than 85 percent of the planted trees survive.

Article 16. According to the principles that management should be rational and exploitation should be permanent, state-operated forestry bureaus, lumber areas, state farms, factories and mines--units administering state-owned forests and woodlands--and counties--units administering collectively-owned forests and woodlands owned by rural residents--should draw up their annual logging quotas and report them to the higher departments. Forestry departments of various provinces, autonomous regions, and municipalities directly under the central government will collect and balance these quotas, examine them with people's governments of the same level, and report them to the State Council for approval.

With the exception of the few provinces and autonomous regions whose reserves of grown and overgrown timber forests exceed the total reserves of timber forests by two-thirds, other provinces, autonomous regions, and municipalities directly under the central government must assess their logging quotas in accordance with the principle that consumption of timber forests must be lower than their growth.

The annual logging quotas approved by the State Council are readjusted once every 5 years.

Article 17. Except for cutting fuel forests in rural residents' private hills, any logging of forests and woodlands operated by state-owned units, or owned by collectively-owned units, or trees on rural residents' private hills, must be incorporated into the state's annual timber production plan.

Article 18. A logging license is needed for cutting trees, except for bamboo, or bamboo in bamboo forests where bamboo production is not the main business, or cutting trees sporadically located in rural residents' private plots or in the vicinity of their houses.

According to different circumstances, units or individuals applying for logging licenses should submit the following documents: State-operated forestry bureaus, or state-operated lumber areas should submit documents regarding their logging zones' surveys and plans, and proof of their reforestation programs during the preceding year. Other units should submit documents indicating their logging purposes, location of logging, type of trees to be cut, woodland conditions, size of the area to be logged, timber reserves, logging methods, and reforestation measures. In addition to these documents, military units should also include documents of approval issued by a division-level organ or higher. Individual loggers should submit documents showing the location of logging, the size of areas to be logged, the type and the number of trees to be cut, timber reserves, and the period of reforestation.

Article 19. Aside from what have been prescribed in the Forest Law, logging licenses needed by counties' state-operated lumber areas, government organs, groups, or schools are issued by the forestry departments of the counties where they are located. Licenses needed by state-operated forestry bureaus, lumber areas, and other enterprises and institutions, as well as military units in various provinces, autonomous regions, and municipalities directly under the central government, and municipalities and autonomous prefectures with districts are issued by forestry departments of the provinces, autonomous regions, and municipalities directly under the central government where they are located, or by units authorized by these departments. Licenses needed by state-operated forestry bureaus under the Ministry of Forestry are issued by the ministry, or by units it authorizes.

Except for special circumstances, departments andunits in charge of issuing logging permits should finish processing applications for permits within a month of receiving the applications.

in case of emergency, under which on-the-spot logging is essential, applications for permits may be exempted. However, the units and departments handling emergency situations should report the logging situation to county-level forestry departments or above for the record.

Article 20. Forestry departments of provinces, autonomous regions, and municipalities directly under the central government, may draw up their own measures for controlling logging on the basis of the relevant regulations prescribed in the Forest Law and these rules.

Article 21. In accordance with Article 33 of the Forest Law, dressed timber hauled out of lumber-areas will be issued transportation permits, which will remain valid throughout the journey.

Units issuing transportation permits shall be designated by forestrydepartments of provinces, autonomous regions, and municipalities directly under the central government.

Article 22. Disciplinary action for violations of the Forestry Law are as follows:

1. Anyone illegally chopping down less than 1 cubic meter of time or not more than 50 young trees in a forestry zone, or not more than half a cubic meter of timber or less than 20 young trees in a nonforestry zone, or causing equivalent losses, is liable for compensation for the losses, replanting several dozen times more trees than he had chopped down, and paying a fine 4 to 8 times higher than the income he got from selling the timber. Anyone illegally chopping down not more than 5 cubic meters of timber or cutting down not more than 100 young trees in a forestry zone, or chopping not more than 2 cubic meters of timber or not more than 50 young trees in a nonforestry zone is liable for replanting 5 times the number of trees he had chopped down, and paying a fine 3 to 5 times higher than the income he got from selling the timber.

Anyone illegally chopping down more than 1 cubic meter of timber or more than 50 young trees in a forestry zone, or more than half a cubic meter of timber or more than 20 young trees in a nonforestry zone, or causing equivalent losses, is liable for compensation for the losses, replanting the trees, and paying a fine 6 to 11 times higher than he got from selling the timber. Anyone illegally chopping down more than 5 cubic meters of timber or over 100 young trees in a forestry zone, or more than 1 cubic meter of timber or more than 50 young trees in a nonforestry zone is liable for replanting the trees and paying a fine of 4 to 6 times the income he got from selling the timber.

The income acquired from illegally chopping down trees and selling timber shall be returned to the tree owner.

2. Anyone forging or selling logging or timber delivery permits shall be fined 50 to 100 yuan. Anyone making a profit shall have the profit confiscated and be fined three to six times the amount of profit he has made.

3. If the case is serious, a logging unit or individual who fails to reforest the land shall bear the reforestation expenses and pay a fine equal to the amount needed for reforestation.

4. Anyone setting fire to woodland during the fire-danger period in violation of regulations shall be fined 10 to 50 yuan. Anyone lighting a fire inviolation of regulations and causing a forest fire is liable for reforesting the woodland within a time limit, compensating for damage, and paying a fine ranging from 50 to 500 yuan.

Article 23. Those who are involved in serious cases of felling forests or other trees indiscriminately or illegally, and those who commit other crimes in violation of the Forest Law, must be called to account by the judicial organ to affix their criminal responsibility according to law.

Article 24. Disciplinary sanctions against those who violate the Forest Law are to be decided by the department in charge of forestry affairs at or above county level, or units empowered to act on their behalf.

If a litigant does not agree with the decision of the department in charge of forestry affairs on the fine, he may file a complaint with the people's court within a month of receipt of the notice regarding the fine. The department in charge of forestry affairs may ask the people's court to enforce its decision on the fine, if the ligitant neither files a complaint nor pays the fine before the deadline.

The forms for disciplinary sanctions in forestry are to be standardized by the Ministry of Forestry.

Article 25. Those who destroy shelter forests, economic forests, forests producing lumber for special purposes, precious trees, and forest resources in regions where natural resources are protected, should be called to account to affix their criminal liability according to law. They must also be severly punished according to the provisions in Article 22 of the rules.

Article 26. Those who are instructed to fill gaps with saplings, but fail to do so for one reason or another, may pay an afforestation fee so that the department in charge of forestry affairs can carry out the work for them after receiving payment.

Article 27. Local people's governments at all levels should strengthen the legal system and administrative work, and build a contingent of the public security force for forestry.

Article 28. The Ministry of Forestry is responsible for interpreting these rules.

Article 29. These rules shall go into effect on the day of promulgation.

/6662
CSO: 4007/414

PROBLEMS IN PRODUCING FIBER PLANTS DISCUSSED

Beijing NONGMIN RIBAO in Chinese 15 Feb 86 p 2

[Article: "Problems That Should Be of Concern in Jute and Ambari Hemp Production"]

[Text] I. Production of Jute and Ambari Hemp Exceeds Sales; Growing Area Should Be Controlled

According to estimates made by the sectors concerned, in the 1985-1986 season China will need a total of about 37 million dan of raw jute and ambari hemp. If we add in some reserve supplements the total quantity required will measure approximately 40 million dan--only 56 percent of gross output. Production will exceed sales by 30 million dan. Production of jute and ambari hemp has risen sharply and the price of new hemp entering the market has changed drastically. Aside from relative stability in Jiangsu and other provinces where production and sales are basically balanced, price-cutting measures have been adopted and market prices are weak in Shandong, Henan, Anhui, Hunan, and other provinces where production exceeds sales. In Nan Xian, the major hemp-producing area of Hunan, more than 200,000 dan of hemp, or one-fourth of the county' gross output for the year, has been stored to wait for a rise in prices. We should be very concerned about the current state of nationwide overproduction and we should place suitable controls on growing areas, particularly in provinces (or autonomous regions) where production outstrips sales. Based on a clear understanding of the situation in a particular locale, we must promptly convey information to hemp farmers, enhance planning and guidance, and prohibit arbitrary expansion.

II. Production and Sales of Ramie Are Basically Balanced; We Must Concentrate Our Efforts on Raising Unit Yields and Improving Quality

Chinese ramie and processed goods made therefrom are used largely for export; foreign sales account for over three-fourths of total output. The United States is the major importer of Chinese ramie. In the past 2 years the United States has not imposed quota restrictions on flaxen textiles, and consequently exports have been stable and the assortment of exports has been expanded from bolts of grey cloth, strips of linen, and ramie yarn to spun and stitched textiles of raw ramie and cotton-ramie blends. However, we must be aware that the current procurement price for domestic ramie has risen from 140 yuan per dan to 300 yuan per dan, and the cost of export foreign exchange has increased. The foreign trade sector is having difficulty operating.

Here in China, summer costumes of blended ramie fiber and fabrics of blended polyester and ramie are welcomed more and more by consumers. Good reports have been made of the several exhibition sales held by the industrial and commercial sectors. Demand has exceeded supplies for all the goods on display and shoppers have had to line up and scramble to buy the products. The problem is that industrial production costs are rather high, so much so that deficits ensue, and this has affected the growth and development of markets for domestic sales. Right now there is also a very limited volume of cloth sold for use in apparel and so forth.

By and large, ramie production is now basically in balance with sales. Recent occurrences of insufficient supplies to meet demand, value stimulation, and the trend of continued rapid expansion facing ramie production should concern us. Actually, ramie exports and domestic sales alike have been limited. Because their processing techniques are not up to standard, township enterprises and independently operated small-scale ramie degumming plants produce goods that do not meet quality requirements. Considering the limited capacity of the international market, it is very hard to keep up the momentum of current growth. Therefore, the tight situation in domestic demand for ramie will loosen up some and the purchase price may well decline. In ramie production China must pay close attention to changes in foreign and domestic market demand. We must develop steadily and expend more efforts to raise unit yields and product quality, and it is inadvisable for us to make large or sudden increases in growing area.

III. Flax Output Has Declined Due to Natural Disasters; Supplies Are Quite Short of Demand

Flax production and processing are mostly concentrated in Heilongjiang, where production and sales are in balance. For the past few years flax, flaxen yarn, and textiles made therefrom have been entering the international market and sales have been good. The domestic market has also expanded from tent production to use of these cloths in clothing--a move for which there is consumer enthusiasm--and our flax-spinning capacity has grown correspondingly. In 1985 gross output declined due to natural disasters; thus supplies are quite short of demand.

The various hemp plants have many uses and produce excellent economic results. As for development, the range of uses and the demand for hemp are expanding constantly. There are bright developmental prospects for opening up new uses, expanding processing capabilities, meeting domestic market needs, and increasing foreign exchange from exports. China has enormous potential for developing hemp production, and our farmers are quite enthusiastic about its cultivation. Right now we urgently need to plan and guide production arrangements; pay close attention to major historic experiences; enhance investigative research into hemp production, supply, and demand; provide timely information on changes in domestic and foreign markets; and augment foresight.

12510
CSO: 4007/325

NATIONAL

IMPORTANCE OF SORGHUM PRODUCTION DISCUSSED

Beijing NONGMIN RIBAO in Chinese 31 Mar 86 p 3

[Editorial by Wang Fude [3769 1381 1795] and Shi Xiaoda [0670 6906 6671] under the rubric "Informal Essays on Science and Technology": "We cannot Neglect Sorghum Production"]

[Text] During the Sixth 5-Year Plan China achieved notable success in sorghum production and scientific research on sorghum. A number of new hybrids and varieties were bred and disseminated: Hebei Hybrid No 1, Liaoning Hybrid No 1, Shenyang agricultural 447, Shenyang Hybrid No 1, Tie Hybrid No 7, Jin Hybrid No 83, Zhe Hybrid No 12, Ao Hybrid No 1, Ke Hybrid No 12, Wai 17, and Commodity Grain No 3. These varieties are high yielding, high quality, widely adaptive, and highly resistant, and all have been disseminated over areas ranging from one hundred thousand to several hundred thousand mu. Based on partial statistics from 12 provinces and autonomous regions, during the Sixth 5-Year Plan the growing area for new sorghum hybrids and varieties reached 20 million-plus mu, bringing in cash benefits of over 200 million yuan.

In addition, we have made gratifying progress in research on new sorghum breeding methods, large-scale high-yield cultivation techniques, and, in particular, multipurpose sorghum uses such as sorghum beer, alcohol made from sorghum stalks and grain, and green fodder.

Despite the fact that during the Sixth 5-Year Plan China's sorghum growing area declined 24.2 percent compared with the period of the Fifth 5-Year Plan, because of the dissemination of new hybrids and varieties and the application of assorted other technical achievements in production, the sorghum yield per unit of growing area increased 26.2 percent over that of the Fifth 5-Year Plan. Gross output has been basically unaffected.

Sorghum is one of China's age-old agricultural crops. It is resistant to drought and waterlogging, and tolerant of salinity, alkalinity, and infertile soil; it has a powerful capacity to withstand natural disasters. Compared with other grain crops, sorghum is more suited to cultivation in arid and semiarid regions and in infertile, low-lying, waterlogged, saline, and alkaline regions. There are several hundred million mu of arid and semiarid land in China. Consequently, expanding sorghum production to suit local conditions in these areas is an effective means of withstanding natural disasters, conserving water use, and ensuring stable grain production. Furthermore, the entire sorghum plant is prized: both seed grains and stalks are principal raw materials in brewing, sugar refining, and feed processing, and stalks can also be plaited or made into paper. So long as we attach importance to developmental research enhancing multipurpose sorghum uses, there are broad prospects for sorghum.

12510
CSO: 4007/372

IMPROVED WATER WORKS HELP SPRING PRODUCTION

OW061335 Beijing XINHUA Domestic Service in Chinese 0733 GMT 6 May 86

[By reporter Cui Lisha]

[Excerpts] Beijing, 6 May (XINHUA)--Irrigation and water conservancy works renovated in the past winter-spring period throughout China have benefited spring production. According to incomplete statistics, efforts made during that period have laid the foundation for this year's agricultural production by increasing, improving, and restoring more than 12 million mu of irrigated areas and increasing and improving some 3 million mu of areas free from waterlogging. It is learned that since last winter, many places have launched an active drive to build and renovate irrigation and water conservancy works. By the end of March, more than 39 million people throughout China had turned out to help with the construction and renovation of water works, completing 1.9 billion cubic meters of earthwork, equivalent to half the total earthwork completed in the first 4 years of the Sixth 5-Year Plan.

With the return of spring, these renovated irrigation and water conservancy works have started bringing benefits to spring irrigation and farming. Spring irrigated areas in Shandong Province this year increased by 15 million mu over last year. By the end of March, Shanxi Province had completed more than 58,000 water conservancy works and built or renovated 3,068 kilometers of leak-proof irrigation ditches. From late February to the latter half of March, Shanxi Province put more than 28,000 water conservancy facilities into service for fighting drought and spring irrigation, increasing the irrigated areas by 1.5 million mu over last year. In addition to repairing water conservancy installations vandalized seriously in recent years, Shaanxi Province has also concentrated on renovating and reinforcing water works this year, thereby facilitating winter and spring irrigation and increasing the spring irrigated area by more than 4 million mu. With the removal of sludge and the renovation of water works, the water utilization rate has improved, reducing the average per-mu rate by 1 yuan or so.

/12232
CSO: 4007/406

SUGAR BEET PRODUCTION OUTLOOK ASSESSED

Beijing NONGMIN RIBAO in Chinese 8 Mar 86 p 2

[Article by Zhang Shouzhun [1728 1343 6150]: "Chinese Sugar Beet Production: Current Situation and Future Development"]

[Text] The history of sugar beet cultivation as raw material for sugar refining is rather short in China. In 1949, only 239,000 mu of sugar beets were planted, comprising 12.8 percent of the total area devoted to sugar crops and amounting to 191,000 tons in gross output. By 1983, the total area devoted to sugar beets had grown to 8.15 million mu while gross output amounted to 9.18 million tons, increases of 33-fold and 47-fold, respectively. Sugar beet plantings now comprise around 45 percent of the total area devoted to sugar crops. The sugar beet segment of overall sugar crop production has slso risen notably--from 3.5 percent in 1949 to 21.9 percent in 1983.

Growth of sugar beet production has been rapid worldwide. By the beginning of the 1980's, there were 44 nations planting a total area of 134.66 million mu of sugar beets for a total yield of 270 million tons. The reason for this rapid growth is that the factories processing sugar beets provide byproducts which serve as raw materials to the chemical industry and an abundance of highly nutritious feed for livestock in addition to edible sugar.

There is still a great deal of potential growth for China's sugar beet industry in the northeast, north, and northwest, where abundant resources and large diurnal fluctuations in temperature make for a high sugar content on an expanded area of cultivation. Development of sugar beet production can be linked to development of the livestock industry. The prospects for improved unit yields is also great. The 1983 national average was 2,251 jin per mu--just half the average wordwide and much lower than in such countries as the United States, France, The FRG, and Japan. Therefore, the emphasis from now on should be on increasing unit yields. Doubling unit yield is the same as doubling area.

The low unit yields and drop in sugar content now suffered in the industry in China has a number of causes, which primarily are as follows:

1. The area under cultivation is dispersed.
2. Field maintenance is difficult, and the number of plants per unit of area is low.
3. Product quality is low and the extent of yield increases is small.
4. Damage from diseases, pests, and weeds cannot be eliminated in a timely fashion.

The following usggestions are offered to increase the quantity and quality of sugar beet yields.

1. A sensible distribution of established sugar beet production bases, including high-yield, stable yield, and high sugar-yield production bases in the northern and western part of the Songnen plain in the northeast, the Hetao region of Nei Monggol, and northern Xinjiang. These bases should amount to around 15 percent of the total arable land in the counties in which they are located, in accordance with the principle of appropriate concentration. Crop rotation should be practiced every 5 years, and production by specialized households promoted.

2. A system for publicizing technology should be set up and fortified to spread new technology. High-yield, high sugar-content model stations and technology outreach classes should be established.

3. A system for reproducing improved strains should be improved to replace old varieties as rapidly as possible. It should focus on seed management which assesses the value of dissemination and the scope of utilization for sugar beets. Reproduction and dissemination should be carried out in a planned fashion.

4. High prices for high quality should be implemented, along with promotion of a contract system for production and sales. This will help support farmer enthusiasm for producing sugar beets. The comprehensive utilization of byproducts of sugar beet processing should be vigorously expanded.

5. S&T research and personnel cultivation should be augmented. There are currently few researchers in this area with many weaknesses and employing backward research techniques. Research should be emphasized and intensified, and bolstered with necessary instruments and equipment. This will speed up the selection and cultivation of new and improved strains and the search for new technical steps for cultivating higher yields and higher sugar contents.

12303
CSO: 4007/344

MORE PEASANTS RELIEVED FROM POVERTY

OW130136 Beijing XINHUA in English 0107 GMT 13 May 86

[Text] Beijing, 13 May (XINHUA)--Civil affairs departments throughout China have helped 690,000 peasant households escape from poverty by offering interest-free loans or rendering assistance gratis over the past year, today's ECONOMIC DAILY reported.

In late 1984 the State Council issued a circular calling for immediate assistance to the poor areas of the country. The Ministry of Civil Affairs raised 380 million yuan in relief funds to aid 146 disaster-ridden counties in 21 provinces and autonomous regions.

The funds were raised through different channels including the central government, banks, the collectives, relatives and friends; the funds local administrations raised accounted for more than 60 percent.

Among the 146 poor counties, the civil affairs departments selected 3.2 million of the poorest people from 690,000 families to be the first beneficiaries.

Local authorities also helped the poor peasants to set up enterprises or organize specialized production. Jiangxi Province set up factories to process the feathers and meat provided by families specializing in raising ducks--previously among the poorest of the peasants.

Scientists also actively offered their help by conducting surveys, training personnel and providing scientific information to those areas.

/12232
CSO: 4020/323

FACTORS IN REVISING PLANTING COMPOSITION DISCUSSED

Beijing NONGMIN RIBAO in Chinese 14 Feb 86 p 2

[Article by Shu Ping [6615 6097]: "Six Relationships To Be Handled in Readjusting Planting Composition"]

[Text] Changing the old planting composition and establishing a new one suited to the circumstances of commodity economic development is a major problem in the readjustment of rural industrial composition. Since 1979 China has made great progress and accumulated considerable experience in readjusting planting composition.

At the National Agricultural Conference convened at the end of 1985, agricultural comrades from all over expressed the opinion that the readjustment of planting composition in the last 7 years can be divided into two stages:

In the first 6 years adjustments were made primarily to make production adaptable and to supplement product shortages. For the most part we adopted suitable measures to reduce the grain growing area, increase the proportion of cash crops, reform the cropping system, readjust the regional distribution of farm crops, and substantially increase prices for farm and sideline products. Consequently, we have brought about rapid, sustained growth in agriculture. During those 6 years the area of China sown in grain crops was reduced 110 million mu, while total yield increased at a rate of 5 percent per year. The value of output from cultivation rose 47.6 percent and output values in forestry, animal husbandry, sidelines, and fishery increased 123 percent. Consequently, optimum conditions and opportunities were created for comprehensive, large-scale readjustments in 1985.

As for adjusting cultivation, in 1985 rural areas all over China further revised the grain crop ratio, methodically reduced the cotton growing area, and readjusted agricultural distribution and the farm crop mix. In particular, some areas began to put an emphasis on expanding the scope and intensity of cultivation and developing feed crops and produce-related processing industries. Cultivation broke free from the confines of grain and cash crops. While the value of output from cultivation remained more or less on a par with that of the previous year, growth of cash crops, forestry, animal husbandry, sidelines, fishery, township enterprises, and tertiary rural industry all exceeded levels for the previous 6 years.

Reviewing 7 years of experience, particularly the revisions of the past year, comrades in the agricultural sector believe we must manage the following relationships in adjusting planting composition:

1. The relationship between planting adjustments and adjustments in other industries. This is a prominent problem in the revision of rural industrial composition. In Chinese agriculture the proportions of forestry, animal husbandry, sidelines, and fishery are very small and rural industrial, commercial, construction, transportation, and service professions are poorly developed. Accelerating the rate of growth in these industries is absolutely essential if we are to arrive at a beneficial cycle and develop commodity production in agriculture, and if agriculture is to double and the peasantry achieve prosperity. This acceleration will also bring about the conditions for revising and expanding cultivation. We must continue to exert ourselves in this area for some time to come. At the same time, we must realize that cultivation is still the basis for revising agriculture and the entire rural economy. Only if we achieve synchronous adjustments and steady growth in cultivation can we have reliable and assured adjustments and growth in other professions. However, some locales have ignored the fundamental role of cultivation and have relaxed leadership in grain production. Some new discordant factors have arisen requiring further readjustments. This illustrates that, in making revisions, we must have a firm understanding of the entire substance of rural industrial composition. We must base everything on "coordination," and we cannot revise only certain levels or a few specific sectors or industries. This is even more important in developed regions and on the outskirts of medium and large cities.

2. The relationship betwen grain crops and cash crops. In readjusting the internal composition of cultivation, good momentum has arisen in the past few years. Grain production has increased and cash crop harvests have risen. However, in 1985 there was little enthusiasm for grain farming, and both gross output and unit yield declined while certain cash crops were expanded too quickly and abruptly. This illustrates that, aside from the effects of certain policy factors, grain's basic role has been neglected. In the first place, although the grain supply is nearly 800 jin per capita, relatively speaking this is still a low level. Furthermore, subsistence needs for approximately 10 percent of the population have yet to be met. Grain remains a matter of overall importance for the national economy, the people's livelihood, and agriculture itself. In the second place, comprehensive expansion of cash crops during the past few years has really been built upon a foundation of increased domestic grain production and some supplemental use of imported grain crops. If we do not face up to this fundamental role it will be difficult to continue expanding cash crops.

3. The relationship between growing area and increased unit yield. Right now there is only 1 mu, 4 fen of cultivated land per capita in China. Under these limited growing conditions we should seek to expand grain and cash crops alike by emphasizing increased unit yields. We cannot look upon readjustment as

merely an increase or decline in crop area, and we especially cannot regard it as a reduction in grain growing area. We must include increases in unit yields and utilization of land resources within readjustment. For the past 6 years the adjustments to grain area have been fairly consistent: Sown area has been reduced an average of 19 million mu per year and unit yield has risen an average of 6.1 percent per year, ensuring a rate of 4.9 percent annual growth in gross output. This shows that area reductions have been specifically reductions in grain area. We must take into consideration the degree to which unit yield can rise under current conditions: Where it can be increased by a large margin we can reduce the growing area substantially in order to ensure a steady growth in gross output.

4. The relationship between quantity and quality of farm produce. At present, our first priority is still to produce a sufficient quantity of farm produce to satisfy social needs. For commodity production, however, if we stress only quantity and ignore quality, it will be hard to achieve optimum economic results. China's agricultural exports are not very competitive; most of our fruit can only be sold by street peddlers in Hong Kong and Macao, and, due to quality problems, the husked rice that used to sell in such large quantities has declined year after year. As a result, based on the basic production link, we must strive to readjust the breed assortment and improve the quality of farm produce. In addition, there is an inverse correlation between yield and quality in farm crop breeds at any given time. Given a guaranteed quantity of farm produce, to realize breed diversification and improvement we should gradually reduce growing areas for certain high-yield, low-quality household breeds.

5. The relationship between managing matters based on natural laws and management based on economic patterns. In the past few years we have universally stressed the use of planting measures suited to local conditions, and we have done a pretty good job of bringing natural advantages into play. As agriculture becomes more commercial, economic patterns will play a greater and greater limiting role. Areas of Hebei, Shandong, and Henan have natural advantages for developing cotton production. In the past few years, whenever China has been short of cotton major efforts to expand cotton production have conformed to natural laws and economic patterns alike. In the past 2 years our cotton shortage has changed to surplus, and if we continue to expand the cotton growing area it will be impossible to turn the cotton produced into commercial goods. Consequently, at the same time as we bring natural advantages to bear in suiting measures to local conditions, we must also consider the possibilities under current economic conditions and the market demands of society. In this way we can organically integrate management of affairs based on natural laws with management based on economic patterns, and only then can we transform natural advantages into product advantages, commodity advantages, and overall economic advantages.

6. The relationship of goods production to processing, preservation, transportation, sales, funding, and technology. As the quantity of produce from cultivation increased, the proportion entering the market as commodities grows ever larger. In the past 2 years "selling problems" or "buying problems" have appeared in some localities, all related to inhibited circulation and the local inability to process, preserve, and transform

produce to raise its value. In the process of revision, whatever we research and develop, wherever we make reductions, and however major the steps we take, we must always take into consideration our capabilities in processing, preservation, transportation, sales, funding, and technology. Then we must resolve goods production and support measures to mesh with these capabilities. In readjusting the grain growing area, Fujian proposed that "the extent of our grain transport capabilities will determine what size steps are to be taken in the readjustment process." This is a very good practice.

Comrades in the agricultural sector have also stressed proper handling of the relationship between macroeconomic controls and microeconomic stimulation, and correct management of relationships among economic benefits, social benefits, and ecological benefits, as well as other problems. They believe that we should apply a systematic and comprehensive viewpoint, conscientiously review our experiences, research ways to deal with the situation, and do a better job of revisions during the Seventh 5-Year Plan.

12510
CSO: 4007/325

BRIEFS

LOANS FOR RURAL POOR--Beijing, 19 May (XINHUA)--The Agricultural Bank of China plans to lend 1.5 billion yuan to help develop poor areas over the next 5 years, today's ECONOMIC DAILY reported. Bank officials have instructed local branches to ensure that money is provided for peasants in poor areas--many of them remote parts inhabited by ethnic minorities--to feed and clothe themselves. At a recent national meeting held in Xinyang, Henan Province, bank officials stressed the importance of relaxing loan restrictions in such cases. Interest can be waived on loans to companies and building schemes in these areas which have closed or been suspended through lack of money, and repayment terms can be extended for money borrowed before 1973. [Text] [Beijing XINHUA in English 0149 GMT 19 May 86 OW] /6662

MODERNIZED RICE STOCK PRODUCTION--Changsha, May 19 (XINHUA)--China's first modernized base for producing breeder seeds of rice will be completed this year in central China's Hunan Province, according to local officials. Covering 40 hectares, it will produce 300,000 kg of breeder seeds annually. Every four to five years, the province will be able to rejuvenate its rice varieties, and this is expected to help increase the rice output by 500,000 tons a year. The production base will be fully mechanized. [Text] [Beijing XINHUA in English 1403 GMT 19 May 86 OW] /6662

LOANS FOR PEASANTS--Beijing, May 17 (XINHUA)--The Agricultural Bank of China is helping 100 million rural households boost production by providing them with more loans, the ECONOMIC DAILY reported today. A total of 13.97 billion yuan was granted to individual peasants by the bank and credit cooperatives in the first four months of this year, accounting for 87 percent of the total agricultural loans in this period. The proportion was up 18 percent over that of last year, the paper said. Of the loans, 87 percent were used for the purchase of seeds, chemical fertilizer, draught animals, oil and spare parts for farm machines. [Text [Beijing XINHUA in English 0158 GMT 17 May 86 OW] /6662

WATERMELON AREA INCREASES--Based on estimates by the Agricultural Department of the Ministry of Agriculture, Animal Husbandry, and Fishery, this year the area planted to watermelon (including muskmelon) will increase over last year. Based on statistics from 13 provinces, municipalities, and autonomous regions, the planned area is 9,533,000 mu, an increase of 17 percent over last year's 8,166,000 mu; Henan, Hunan, Liaoning, and Shaanxi will have a more than 20 percent increase in area. [Text] [Beijing NONGMIN RIBAO in Chinese 26 Apr 86 p 2]

NORTHERN SHELTERBELT TO BE EXTENDED--Yinchuan, 9 May (XINHUA)--The green "great wall" in northern China has been extended by 556,000 hectares so far this year, an official of the forestry ministry said here today. Between 1978 and 1985, a 7,000 km tree belt was planted from Heilongjiang province in northeast China, traversing the loess highlands, skirting the deserts and plateau of Qinghai province, and ending in the Xinjiang Uygur autonomous region to control soil erosion and halt desert encroachment there. The State Council, China's highest governing body, decided to plant 6.3 million hectares of trees as a shelterbelt in 466 counties in 11 provinces, autonomous regions and Beijing municiapality in ten years starting from this year, and raise the forest coverage rate from 5.9 percent last year to 7.7 percent by 1995 in those areas. [Text] [Beijing XINHUA in English 0804 GMT 9 May 86 OW] /12913

THINK TANK AIDS FARMERS--Beijing, 8 May (XINHUA)--Today's PEOPLE'S DAILY asks agricultural officials throughout China to seek expert advice from a special agricultural think tank helping farmers since it was founded 2 years ago. "Officials involved in farming should be more open to the opinions of experts to eliminate blind spots and to improve efficiency in their work," the communist party newspaper says. According to the paper, the Beijing Think Tank, with 70 agricultural scientists, has been successfully advising China's leaders since 1984. The fine breeds of grain, maize, soybeans and vegetables that the scientists proposed planting have reaped good harvests, the paper says. And the yield of cross-bred rice they suggested planting in 700,000 hectares has been one fourth larger than the country's average. [Text] [Beijing XINHUA in English 1432 GMT 8 May 86 OW] /12232

AGRICULTURAL TESTING CENTERS--Beijing, 13 May (XINHUA)--China has set up nine agricultural testing centers in major grain producing areas, according to the Ministry of Agriculture, Animal Husbandry and Fisheries today. The centers offer services in analysing and testing soil, fertilizer, the quality of crops and side-line products, pesticides, animal diseases and nutritional elements of feed and fodder. Over the past few years, the centers have undertaken 1.35 million items of services and 114 research projects and trained a large number of technical personnel, an official from the ministry said. Set up 3 years ago, the nine testing centers are in Beijing, Shaanxi, Hubei, Xinjiang, Jilin, Guangdong and Jiangsu and have 400 technical personnel. The testing center in Jilin Province has screened a number of good soybean strains and completed testing and analysis of the nutritional composition of the more than 2,200 local soybean strains, the official said. The new strain "Jilin No 20" was trial planted on 13,000 hectares last year, showing remarkable increases in output. [Text] [Beijing XINHUA in English 2354 GMT 12 May 86 OW] /12232

CSO: 4020/323

TRANSPROVINCIAL AFFAIRS

FORUM DISCUSSES RURAL DEVELOPMENT OF NORTHEAST ECONOMIC ZONE

SK220140 Shenyang DONGBEI JINGJI BAO in Chinese No 25 5 Apr 86 p 1

[Excerpts] The Northeast China Economic Zone Planning Office of the State Council held a forum on rural development of the Northeast Chona Econmic Zone in Shenyang from 25 to 29 March. The forum focused on studying and discussing the issues concerning facilitating lateral economic cooperation and developing rural commodity production series.

Wang Luming and Peng Mengyu, deputy directors of the Northeast China Economic Zone Planning Office, presided over the forum and delivered speeches there. Also present at the forum were Su Ping [5685 1456], secretary general of the Northeast China Economic Zone Planning Office, and Li Yunzhong [2621 0061 0112], deputy secretary general of the Northeast China Economic Zone Planning Office. Attending the forum were responsible comrades of rural work departments; rural committees; rural research development centers; agricultural division offices; agricultural, animal husbandry, and fishery departments; and agricultural and forestry offices of the planning and economic committees from Liaoning, Jilin, and Heilongjiang Provinces, and Nei Monggol Autonomous Region. Also present at the forum were responsible comrades of the Songliao committee under the Ministry of Water Resource and Electric Power. Specialists and professors from relevant departments were also invited to attend the forum.

At the forum, Comrade Wang Luming delivered a speech entitled "Cooperate To Develop Rural Commodity Production Series."

The forum defined eight questions concerning studying the rural development of the Northeast China Economic Zone in 1986. They are as follows: Make a strategic study of the rural development of the Northeast China Economic Zone, compile a handbook on the agricultural resources and rural social economy of the Northeast China Economic Zone, make a study of the issue concerning stabilizing and developing grain and soybean production, make a study of the issues concerning rationally developing and using water resources and keeping balance between supply and demand, make a study of the development of town and township enterprises, make a study of forestry construction and the development of mountainous areas, make a study of rural environmental protection and agricultural ecologic construction, and make a study of issues concerning developing and using grasslands and preventing the grasslands from turning into sandy areas.

In accordance with the spirit of "gradually setting up the organizations in charge of sponsoring joint conferences of various trades in Northeast China in order to further facilitate the lateral cooperation among relevant trades," through consultation, the forum decided to set up the rural development strategic research society, the agricultural, scientific and technological information exchange centers, the land management association, and the joint and coordination group for producing and marketing agricultural and sideline products under the Northeast China Economic Zone.

/6662
CSO: 4007/414

BRIEFS

BIGGER WHEAT HARVESTS--Beijing, 9 May (XINHUA)--This year's wheat output in Henan province, one of China's main producers, is expected to exceed last year's 15,580,000 tons, provincial officials forecast, while another major producer, Shandong province, is expecting to reap a record 15 million ton harvest. [Excerpt] [Beijing XINHUA in English 1422 GMT 9 May OW] /12913

CSO: 4020/317

GOVERNOR CITES IMPORTANCE OF SUMMER GRAIN HARVEST

OW121148 Hefei Anhui Provincial Service in Mandarin 1000 GMT 11 May 86

[Excerpts] Have a clear understanding of the current agricultural production situation, do a still better job in grain work, strive to fulfill the task of this year's purchase of summer grain and oil-bearing crops, and strengthen the leadership over the grain work--this is the gist of Governor Wang Yuzhao's talk at the provincial meeting on grain work yesterday morning.

After dwelling on the current agricultural production situation in our province and the several tasks related to grain which must be done well, Governor Wang emphatically pointed out how to strive to fulfill the task of this year's purchase of summer grain and oil-bearing crops. He made six points:

1. It is necessary to fully understand the importance of carrying out the task of purchasing summer grain and oil-bearing crops.

Governor Wang said: The amount of summer grain purchase accounts for over 80 percent of the total output of the production period of the year, while that of rapeseed, over 90 percent. Performance of the task of purchasing summer grain and oil-bearing crops has a direct bearing on the performance of the whole year's task. The central authorities have decided that provinces that fail to fulfill this year's grain purchase task will suffer a reduction in their grain allotment; that means, a reduction of grain allotment for everybody. Importance of this should be understood.

2. It is necessary to educate peasants to seriously fulfill their grain contracts.

3. It is necessary to enforce the policy on purchase prices and the quality requirement.

4. It is imperative not to relax the necessary administrative control.

5. The purchasing methods should be improved.

Without exception, cash must be paid for purchase of grain and oil-bearing crops. Sellers must be paid in full. Grain stations must not withhold any portion of the payment on behalf of any units or individuals.

6. A strict system of responsibility should be enforced in purchasing grain and oil-bearing crops. The county head is responsible for his county's failure to fulfill the task of grain purchase. Leading cadres of grain departments, industry and commerce administration bureaus, banks, and supply and marketing cooperatives are responsible for all problems of their respective units.

/9274
CSO: 4007/408

AUDITS REVEAL NUMEROUS CRIMES IN GRAIN SYSTEM

Hefei ANHUI RIBAO in Chinese 3 Feb 86 p 1

[Article by Wei Youwen [5898 2589 2429]: "Some Economic Crimes in Anhui's Grain System"]

[Text] Anhui has united its reformed party and launched a full-scale audit of the grain system. Up to the present, 85.7 percent of all grain stations, grain warehouses, and food product factories have been audited. The audits have revealed 356 cases of economic crimes.

Discoveries from the audits reveal that illegal economic activities in the grain system are serious:

1. There are many large and important cases. Investigations have uncovered 185 cases each involving illegal sales of more than 50,000 jin of grain coupons. There were 66 cases involving large sums of money. Of these, 41 cases each involved more than 10,000 yuan, 15 cases each involving more than 50,000 yuan, 8 cases each involving more than 100,000 yuan, and 1 case involving 300,000 yuan. For example, Suo Lifang of Funan County's Zhonggangji and his accomplices purchased more than 1.9 million jin of grain coupons from Wuhu, Guichi, Fuyang, Yingshang, and other places, and connived with grain departments to purchase these illegally large quantities in order to obtain huge profits.

2. There is fraudulent reporting of prices under the cover of the unit or collective, then private distribution of the profits, thus constituting a crime. Jiang Gaotian, the director of Dangshan County's Dazhai grain station, and Yang Jide, the assistant director, illegally used more than 100,000 yuan of public funds to privately purchase more than 729,000 jin of wheat from Henan, which they then sold to the grain station at a higher price and made more than 14,500 yuan for themselves.

3. False purchases and sales are exceptionally evident. Investigations have uncovered 213 cases in the province of false purchases and sales of grain that were illegal. Mu Zhishen, the responsible person at Mengcheng County's Chanzhakou substation, connived with storeman Guan Yanzhong to falsely record the purchase of 720,000 jin of grain, resulting in private gain of more than 6,000 yuan. At the same time Mu and Guan, using the names of the seed company and the supply and marketing cooperative, illegally bought and sold 15.72 million jin of sweet potatoes, pocketing

more than 43,000 yuan from price differentials, lining their pockets with public funds.

4. Illegal trade in grain coupons is serious. The illegal trade of grain coupons in the province exceeds more than 47.31 million jin. Some basic level grain stations know the law but break it anyhow. Some offenders openly purchase grain coupons from grain coupon sellers. Some grain stations have their staff purchase grain coupons everywhere. Some directly arrange with grain coupon sellers to change the "normal price to a negotiated price", or "negotiated price to above-quota". Six staff members of Funan County's Zhuzhai grain station purchased grain coupons from the public and then arranged to change their categories. Some manipulated more than 200,000 jin, and others manipulated more than 600,000 jin. The recordkeeper and the antichemical worker also manipulated more than 600,000 jin, each making more than 50,000 yuan in profits.

5. There are many cases of corruption, making up 50 percent of all cases.

6. There are cases where grain has been stolen from state granaries. Wang Zhiming, a worker at Zongyang County's Wuju grain substation, connived with peasant Tao Fangkou to use phony methods to take more than 50,000 jin for themselves. Liu Shifa, a storeman at the Fengyu grain station in the same county, used the opportunity while transferring grain from the Shihe grain station in the same county to divert 60,000 jin of early rice to his own pockets.

Of the above-mentioned cases that have appeared in Anhui's grain system, 328 have been closed and 347 individuals have been punished.

12994/9835
CSO: 4007/299

MEETING STRESSES FLOOD, DROUGHT PREVENTION

OW140804 Hefei Anhui Provincial Service in Mandarin 1000 GMT 13 May 86

[Excerpts] The Anhui Provincial Flood-Prevention and Drought-Combating Command held a meeting in Hefei from 7 to 9 May on preventing floods and combating droughts. The meeting arranged this year's flood-prevention and drought-combating work.

Governor Wang Yuzhao and Vice Governor Meng Fulin attended and addressed the meeting.

The meeting pointed out: Since the foundation of the People's Republic, particularly the last 2 years, we have invested a large amount of manpower, materials, and funds in water conservancy projects have played a role in resisting floods and droughts and promoting good agricultural harvests. However, we have also suffered various property damages and losses because many of our water conservancy facilities are worn out and are poorly managed. Moreover, poor river-dredging work has made existing water conservancy facilities incapable of fighting natural calamities. Therefore, good flood-prevention and drought-combating work is of great significance to Anhui's economic development and reaping good agricultural harvests this year.

In view of Anhui's reality, the meeting put forward concrete demands for this year's flood--revention and drought-combating work:

1. Flood-prevention facilities should be inspected and flood-prevention measures should be implemented before floods occur.

2. It is necessary to improve the management of existing water wells, pumping stations, and mechanical and electric pumping equipment in areas north of the Huaihe, and damaged water conservancy facilities there should be repaired as soon as possible. From this year on, 1.5 million mu of land should be either restored or turned into irrigated areas annually in the province.

3. It is necessary to do serious river-dredging work.

4. All mechanical and electric pumping equipment in the province should be inspected, and if necessary repaired, so that they are constantly kept in good operating condition.

5. People in hilly areas should pay attention to storing and conserving water and prepare against droughts.

6. All reservoirs should institute and enforce strict management rules and regulations, conduct strick inspections to eliminate hidden dangers, ensure safety during floods, and prevent accidents.

7. It is necessary to pay attention to urban flood-prevention work and ensure safety of cities during floods.

/9274
CSO: 4007/408

ANHUI

TIGHTER CONTROL OVER LAND MANAGEMENT URGED

Hefei ANHUI RIBAO in Chinese 13 Feb 86 p 2

[Commentary by ANHUI RIBAO staff commentator: "Enhance Land Management, Prohibit Indiscriminate Land Occupation and Cultivation"]

[Text] Land is the most precious natural resource: It is the material foundation for all production, construction, and human subsistence. In China there is a large population and little land; we have insufficient reserves of arable land. A basic national policy that we must insist on for the long term is to value completely every inch of land and to utilize it sensibly--to be conscientious in safeguarding arable land. In the past few years the CPC Central Committee and the State Council have issued repeated injunctions prohibiting the indiscriminate occupation and misuse of arable land and the waste and destruction of land resources. Anhui has also formulated methods for conducting supervision of state construction and of village and town housing construction on the land. However, in many locales the unhealthy trend toward indiscriminate occupation and misuse of arable land is still spreading and growing, and considerable stretches of high-yield land and vegetable bases on the outskirts of cities and towns, around villages, and along roadsides have been taken over. According to incomplete statistics compiled in Fuyang Prefecture in 1984, peasant house building has taken over nearly 40,000 mu of arable land. The primary reason for this phenomenon is that some areas have relaxed land management and have not rigorously controlled examination and approval procedures for nonagricultural land use. In particular, in using land for building township enterprises we have not handled land requisition procedures according to stipulations. According to one survey, township enterprises in one county-level city have built 12 brickyards, occupying a total of 1,500 mu of arable land, without going through any requisition formalities. Some land has been commandeered and not put to use, causing arable land to lie waste.

If this kind of situation is allowed to develop freely it will certainly lead to major problems and bequeath suffering to future generations. According to statistics, in the early period after the founding of the PRC, people in Anhui occupied 2.74 mu of arable land per capita. In the 30 years from 1954 to 1984 arable land declined by a total of nearly 10 million mu and population rose 83.1 percent, so per-capita holdings of arable land fell to 1.33 mu--a reduction of more than half. On the average, arable land declines 660,000-

ANHUI

TIGHTER CONTROL OVER LAND MANAGEMENT URGED

Hefei ANHUI RIBAO in Chinese 13 Feb 86 p 2

[Commentary by ANHUI RIBAO staff commentator: "Enhance Land Management, Prohibit Indiscriminate Land Occupation and Cultivation"]

[Text] Land is the most precious natural resource: It is the material foundation for all production, construction, and human subsistence. In China there is a large population and little land; we have insufficient reserves of arable land. A basic national policy that we must insist on for the long term is to value completely every inch of land and to utilize it sensibly--to be conscientious in safeguarding arable land. In the past few years the CPC Central Committee and the State Council have issued repeated injunctions prohibiting the indiscriminate occupation and misuse of arable land and the waste and destruction of land resources. Anhui has also formulated methods for conducting supervision of state construction and of village and town housing construction on the land. However, in many locales the unhealthy trend toward indiscriminate occupation and misuse of arable land is still spreading and growing, and considerable stretches of high-yield land and vegetable bases on the outskirts of cities and towns, around villages, and along roadsides have been taken over. According to incomplete statistics compiled in Fuyang Prefecture in 1984, peasant house building has taken over nearly 40,000 mu of arable land. The primary reason for this phenomenon is that some areas have relaxed land management and have not rigorously controlled examination and approval procedures for nonagricultural land use. In particular, in using land for building township enterprises we have not handled land requisition procedures according to stipulations. According to one survey, township enterprises in one county-level city have built 12 brickyards, occupying a total of 1,500 mu of arable land, without going through any requisition formalities. Some land has been commandeered and not put to use, causing arable land to lie waste.

If this kind of situation is allowed to develop freely it will certainly lead to major problems and bequeath suffering to future generations. According to statistics, in the early period after the founding of the PRC, people in Anhui occupied 2.74 mu of arable land per capita. In the 30 years from 1954 to 1984 arable land declined by a total of nearly 10 million mu and population rose 83.1 percent, so per-capita holdings of arable land fell to 1.33 mu--a reduction of more than half. On the average, arable land declines 660,000-

plus mu per year and population increases by 660,000 people. The annal decrease in arable land and increase in population are approximately equal in size to a medium-sized county. Every level of leadership must attach the highest importance to this problem and adopt powerful measures to manage the land satisfactorily.

First, every level of government must quickly build and perfect land management organizations and conscientiously administer the land in the areas under their own jurisdictions. They must indulge in less idle talk, undertake more practical matters, benefit future generations, and assume responsibility for their descendents. Second, we must carry out a comprehensive investigation to deal with indiscriminate occupation and misuse of arable land, and we must make this unhealthy trend a major component of party rectification. Third, we must further revise and perfect land management laws and regulations and strictly prohibit land transactions, covert transactions, rentals, private deed transfers, and changes of land rights categories at will. We can also explore the use of economic measures and methods of macroeconomic control to administer the land. For example, we can collect a vegetable land construction fund, try out control quotas for nonagricultural construction on the land, and collect reclamation funds and land-use taxes. In short, we must adopt strong, vigorous economic, administrative, and legal measures, and we must value and sensibly utilize every inch of land in order to improve the land utilization ratio.

12510
CSO: 4007/321

ANHUI

USE OF FEED SOURCES TO DEVELOP ANIMAL HUSBANDRY DISCUSSED

Hefei ANHUI RIBAO in Chinese 3 Mar 86 p 4

[Article by Wang Zaikun [3769 6528 3540] of the Anhui Agronomy Institute: "Developing the Use of Feed Resources for Vigorous Growth of Animal Husbandry"]

[Text] Feed resources are the material basis for developing animal husbandry. As living standards have continued to rise in recent years, demand for meat products has continued to increase and the crunch between grain supplies and demand for livestock has continued to worsen. The State Economic Commission has made development of feed resources one of the mainstays for developing the nation's feed industry; and Anhui Province has given the project top priority for its animal husbandry research during the Seventh 5-Year Plan.

The current picture for feed resources shows an urgent need for readjustment for varieties high in energy content and a rather severe shortage of those high in protein. The production of additives is still in its infancy. Moreover, irrational use continues to be a problem. The following points are noted for expanding use of the province's feed resources:

1. Adjusting the makeup of livestock and poultry, utilization of coarse green feeds and development of grass-feeding domestic animals: Surveys on the 1984 makeup of Anhui's domestic animals (by household) show that hogs comprise 62.49 percent of the total while cattle and sheep together comprise 28.98 percent. Of the latter, dairy cattle comprise a mere 0.08 percent. Animal husbandry has expanded in Anhui in recent years but the rise in the proportion of cattle and sheep has not been very large. Hogs and poultry which are one-feed animals lack the ability to feed on coarse green feeds and have high requirements for protein and necessary amino acids. They are animals which "compete with human beings for food." Cattle and sheep, which forage have a much greater capacity for feeding on coarse green feeds. Anhui has 20.12 million mu of grasslands and grassy hillsides. Calculating that each 100 mu of such land can support 2.5 domestic animal units, it should be able to support 400,000 beef and dairy cattle. In addition, Anhui produces around 20 million tons of crop stalks and vines every year which are a considerable source of feed for grass-eating domestic animals which is still not fully exploited.

2. Open up sources of high-protein feeds: The problem of short supplies of protein feeds is particualrly pressing in Anhui. The coarse protein content in feeds for commodity lean hogs should be between 15 and 17 percent. The

actual figure is below 10 percent. This has a severe impact on the lean pork rate. But there is another side to the story. Protein feed resources are not fully exploited. Between 70 and 80 percent of the feed cake used in Anhui is rapeseed and cottonseed cake. The protein content in each of these is approximately 35 percent, but they contain the materials mustard glucoside and cotton phenol, respectively, which are poisonous to domestic animals.

Consequently, upward of 80 or 90 percent is not utilized as feed but as fertilizer. Rapeseed and cottonseed cake is much cheaper than other cake feeds, so that economic returns achieved by exploiting the use of these two cakes would be outstanding. Efforts should be expended toward simple detoxification methods, rational distribution, improved edibility, and lower toxicity products. In addition, there is a considerable amount of animal protein resources, such as blood, bone fragments, fish residue, and silkworm chrysales from slaughterhouses and processing facilities throughout the province which are still not being fully utilized. There is also liquid residue from monosodium glutamate, alcohol, and papermaking factories, all of which can be used to produce feed yeasts which can provide methanol resources for extraction of single-cell proteins--all of which can be gradually exploited.

3. Readjust the makeup of farming and expand planting of high-quality high-yield feed crops. Corn is a high-energy feed which comprises 40 to 50 percent of compound feeds and has earned the name "the king of feeds." Barley has high protein content, and when of good quality, can have a lysine content in excess of 0.52 percent, which is very uncommon among grain feeds. China's famous Jinhua hogs and Denmark's long white hogs were both bred on barley. Some of the corn and barley which have long been grown in Anhui's Huaibei region has been used for feed. But the area planted is small and gross output has not been large. In recent years, portions of Hebei, Shandong, and the northeast have been planted with corn; but this is still inadequate to meet the needs of China's animal husbandry. Based upon local conditions and adjusting to them, there should be a rational adjustment of crop rotation to increase the area planted in corn and barley. At the same time, leguminous forage grasses should be planted on a widespread basis. These are both high-quality feed grasses for domestic animals and also fine green manure crops. This will spur the formation of a beneficial cycle in agriculture.

12303
CSO: 4007/344

ANHUI

DEVELOPMENT OF AQUATIC INDUSTRY URGED

Hefei ANHUI RIBAO in Chinese 14 Feb 86 p 4

[Article by Zhang Jinjian [1728 6930 0313] and Lu Liejia [7120 0441 0502], under the rubric "Development Strategy": "Vigorous Development of Anhui's Aquatic Industry Brooks No Delay"]

[Text] Anhui's aquatic breeding industry is blessed with exceptionally rich natural conditions. Our 130,000 square kilometers of land area encompasses the Huai He system and is girdled by the Chang Jiang, riddled with lakes, and criss-crossed with rivers and irrigation canals. We have 15.8 million mu of aquatic breeding water area. This represents one-tenth of the aquatic breeding area in China, placing Anhui in second place. The vast majority of the water area boasts an excellent natural ecology and teems with well-known, exceptionally fine aquatic products. It is entirely possible for Anhui to build itself into China's major "fish supply."

The current state of Anhui's aquatic breeding industry can be summarized in eight words: It is developing rapidly, but is still behind. As to the former, in 1980 the total volume of aquatic products produced in Anhui measured only 72,800 tons, but during the Sixth 5-Year Plan the volume rose by an average of 17.8 percent per year. In 1985 output reached 165,100 tons, placing Anhui in fifth place nationwide. Of this, the cultivated yield reached 112,500 tons, a greater than 1.5-fold increase over 1980. In addition to this, fry production, fish culture on paddy fields, and fish culture in net pens have also developed rapidly and have developed up to a level of 80 billion fish, 340,000 mu, and 236 mu, respectively. However, we should soberly observe that Anhui's aquatic breeding industry still has a weak foundation, and that we are starting from a low level. If we turn to consulting coefficients and we conduct some lateral comparisons, the problem of "being behind" is completely obvious. For example, the aquatic breeding water area in Hubei and Hunan is similar to our own, yet their output is approximately 100 percent higher than ours. Furthermore, nationally the average yield of aquatic products per unit of water area is 72 jin per mu and in pond cultivation the unit yield averages 165 jin per mu, but in Anhui the corresponding figures are only 38 jin and 55 jin per mu. The aquatic products industry represents only 1.15 percent of overall agricultural composition in Anhui; clearly this cannot meet the demand for making rural industrial composition more rational.

Obviously, turning our potential natural advantages in the aquatic breeding industry into actual economic advantages is truly a strategic undertaking for vitalizing Anhui. For this reason, the goal set forth by the provincial aquatic products sector is as follows: By 1990 the output of aquatic products should reach 350,000 tons, and the aquatic breeding industry should grow by an average of 17 percent per year. We should affirm that there is an ample basis for proposing this goal: appropriate policies have already stimulated the masses to wholehearted enthusiasm for fish culture. Under the exceedingly favorable objective conditions for aquatic breeding that exist in Anhui, the potential that can be tapped is quite significant. Looking at the peculiarities of the industry, aquatic breeding is characterized by low resource consumption, high output, and rapid results, and it is affected little by raw material and energy restrictions. From the perspective of changing trends in rural industrial composition and consumer demand, we need to accelerate the development of aquatic breeding.

The question lies in what kind of methods to undertake and which measures to adopt to resolve, implement, and realize the above goals. We feel that in order to vitalize Anhui's aquatic breeding industry, at the very least we must make some breakthroughs in the following areas:

We must accelerate base construction and promote a more sensible composition and distribution. The newly constructed Bada Fishery Base, which includes production, processing, and export facilities, can be described as targeting the current "trunkless," uncertain situation in the aquatic industry. Thus, it is of the utmost strategic significance to Anhui's aquatic industry that we enhance and accelerate base construction and develop its "backbone" function as quickly as possible. It is also essential that we form a multilevel composition in aquatic breeding, focusing on the Bada base as the "fountainhead" and on cities, counties, townships, and villages as the main body. This may not only promote a more sensible trend of composition and distribution in Anhui's aquatic breeding industry, it may also stimulate vigorous development in the entire aquatic industry and thus raise its proportion in rural industrial composition to 7.7 percent.

We must establish economic associations in the fishery industry in areas of production, science and technology, and education. One of the major reasons for the lag in Anhui's aquatic industry is the paucity of skilled personnel. In Anhui there is an average of only 1 fishery or technical worker for each 40,000 mu of water area. Fishery scientific research personnel are even fewer, averaging 1 for each 400,000 mu of water area. The fishery industry's technical labor force is three to four times greater in Hubei and other provinces. Consequently, setting up economic associations to include aquatic research institutes, aquatics schools, and technical extension work will both resolve initial difficulties and bring later benefits, allowing us to provide and reserve sufficient technology and talent to vitalize the aquatic breeding industry.

Active development of paddy land for fish culture is a new scientific and technical achievement of symbiosis and mutual benefit between rice and fish that brings utterly ideal economic, social, and ecological benefits. If this technique was extended to 5 percent of the provincial water area--1.28 million mu--and produced 100 jin per mu, the gross output would be very impressive.

We must further expand connected pools for intensive fish culture. In fishery production a trend from extensive to intensive persists. In Shanghai and Hunan there are 100,000-plus mu of connected pools for intensive fish culture, whereas there are only 40,000-plus mu of these pools in Anhui. This is the major reason for low aquatic breeding output in this province. If we extend intensive breeding pools to 200,000 mu and produce a per-mu yield of 700 jin, gross output will reach 100.004 million jin.

We must vigorously expand fish culture in net cages and net pens. If the aquatic breeding industry in Anhui is also to forge ahead in a transcendent fashion, we must attach importance to these two techniques that arose in the 1970's. The former technique is suited to small-scale intensive fish culture in single households, and the latter technique is suited to large-scale, divided intensive fish culture on collectives. Both methods have the advantages of low cost and good results. We must also concentrate on developing special aquatic products featuring river crabs, as that is where Anhui's superiority lies.

We must construct four major fish markets. The lag in aquatic products in Anhui is still manifested as high output and low quality. The primary reasons for this are that circulation channels are jammed and the processing industry is backward. Right now Anhui concentrates on selling raw aquatic products. Primary processing has only just begun in the Anqing and Bengbu areas. Consequently, for improving economic results from the aquatic breeding industry it is very urgent that we quickly construct fish markets at Hefei, Bengbu, Anqing, and Wuhu--markets that can produce, store, and process raw materials and that possess sales and service systems--and that we conscientiously strengthen circulation and processing links.

If we take steady steps to accomplish the above tasks there is certainly a good chance that Anhui can build itself into a fish supplier worthy of the name. This will greatly enhance Anhui's power for economic growth.

12510
CSO: 4007/321

FULL USE OF AGRICULTURAL RESOURCES REQUIRED

Hefei ANHUI RIBAO in Chinese 27 Feb 86 p 2

[Article by Li Guangheng [2621 0342 1854] under the rubric "Work Research": "A Discussion of Full Utilization of Solar Energy in Agricultural Resources"]

[Text] In Anhui our work in readjusting rural industrial composition is now growing more profound. One major problem at present is that we must make full use of agricultural resources.

Agricultural resources can be divided into two major categories: natural resources, such as sunlight, heat, water, climate, land, plants, animals, and microorganisms; and social resources, such as labor, animal power, farm implements, chemical fertilizers and pesticides, and funds.

Agricultural production is a biological (including plants, animals, and microorganisms) reproductive process that starts and ends with full use of solar energy. Right now there is still great potential for utilizing solar energy. One of the most important problems to consider in readjusting rural industrial composition is how to follow every means and avenue at our disposal to make the utmost use of solar energy and constantly improve photosynthetic efficiency.

There is a total land area of nearly 40,000 square kilometers in Anhui. According to statistical data, cultivated land accounting for 32.1 percent of the total land area in Anhui produces 89.3 percent of the value of agricultural output. Sunlight floods the earth, and solar energy radiates on farm fields, mountain lands, water surfaces, and grasslands alike. Why is it that the solar energy received by a unit of farmland produces over 10 times the agricultural output value of an equivalent area of mountain land, water surface, or grassland? This points up the disadvantage of the operating under the small-scale peasant economy of the past: one could only engage in farming, and only in cultivation enterprises at that. No importance was attached to mountain, water, or grassland operations, and land resources could not be fully utilized. Actually, the significance of this is that we could not make the best use of solar energy resources, so a great quantity of solar energy has been wasted for nothing.

Thus, as we consider readjusting rural industrial composition we must first put barren mountains, untamed waters, and grasslands to practical use and considerably improve their rates of solar energy utilization and land productivity. For example, we must energetically plant forests on barren mountains, actively expand processing for forest and fruit products, and fully develop and utilize wild animal and plant resources. Right now a great many peasants in mountain regions still live in base poverty. The phrase "holding a golden bowl and yet having nothing to eat" applies primarily to existing mountain resources that cannot be exploited and put to use.

We must seek riches from the waters, undertake a "blue revolution," and vigorously develop the fishing industry and aquatic vegetation to make full use of sunlight shining on water surfaces. Based on statistical data, there are 8 million mu of water area in Anhui that can be used for aquatic breeding, and we are currently using only about half of this. There is still a considerable area of untamed water that is not being put to use. If we employ scientific methods to institute aquatic breeding in these waters we can produce a per-mu output of 200 to 300 jin of fish per year and the output value could reach 200 to 300 yuan. This would be a 100 percent-plus appreciation compared with 1 mu of farmland.

There are abundant grassland resources in Anhui: existing grassy mountains, grassy slopes, and bush fallow amount to about 20.12 million mu. Because the climate here is warm and the rainfall is plentiful, herbage grows luxuriantly, producing 500 to 750 kg of grass per mu per year. This is approximately five times the quantity of grass produced on grasslands and grass farms in China's northern arid zone. Our dominance in this resource is obvious, and full exploitation and utilization of our grass farm resources will allow us to expand herbivore production in Anhui considerably. For example, based on 1 head of cattle to 30 mu of pasturage in an average year, we can raise 700,000 head of cattle, or about twice the number being reared now. If we undertake grass farm improvements on 10 million mu of this pasturage, artificially sow improved forage grass, enhance management, and use enclosures for rotation grazing, we can raise 1 head of cattle on 10 mu of grass farm, for a total of 1.35 million head. If we also use scientific methods to hybridize and improve the local small, yellow cattle and make them useful both for milk and for meat, this will play an enormous role in improving dietary composition for the people of Anhui, in developing the straw manufacturing industry, an in creating foreign exchange for agriculture.

As far as full utilization of solar energy resources is concerned, there is still great potential to be tapped in tilling the soil. For example, barely half, or even less than a third, of the biological output from 1 mu of agricultural crops is actually used for direct human consumption. The rest is used for "farm and sideline products." Secondary production up to multi-stage production and multipurpose utilization of these farm and sideline products effectively improves the rate of solar energy utilization on farmland and increases agricultural yields and output value. To give a specific example, if we harvest 400 kg of rice from 1 mu of paddy land, then we must simultaneously gather in 500 kg of rice straw. If the paddy converts to 7 jin of polished rice, then 1 mu of paddy land would harvest 280 kg of husked rice and 620 kg of rice straw, hulls, and bran. In the past we merely fed the rice straw and bran to livestock or burned the rice straw and hulls as fuel--one time uses. If we followed the "Hai'an pattern" that integrates farming and animal husbandry, and used rice straw and hulls as primary raw materials to grow oyster-cap mushrooms, after the second to fourth mushroom harvest and the drying and pulverization of leftover material the product would be mushroom and bran feed. This kind of feed has a high sugar content and it is easily digested and absorbed by livestock. If 10 to 30 kg of mushroom and bran feed is added to 100 kg of compound feed, 30-plus kg of the feed converts to 1 kg of meat or eggs. If this feed is fed to chickens, after treatment the chicken manure can be filtered into pig feed and fed to swine. The pig manure can be dumped into a methane-generating pit to produce methane that can be used for cooking, lighting, and generating electricity. The residue after making methane can be used as fertilizer or for raising earthworms and growing mushrooms. In this kind of multi-stage production and multipurpose utilization, each usage can raise the value of agricultural output and increase opportunities for multiple labor employment. Thus it stimulates the farm and sideline product processing industry and allows rapid, substantial prosperity to grow among the peasantry.

12510
CSO: 4007/321

ANHUI

TIGHTER CONTROL OF SEED DISTRIBUTION NEEDED

Hefei ANHUI RIBAO in Chinese 6 Feb 86 p 2

[Article by Anhui Seed Co.: "Management of Seeding Operations Must Be Strengthened"]

[Text] Seeds are the key factor in raising agricultural yields. Use of improved seed varities is the most economically efficient means to increase yields. In recent years, the level of scientific farming has risen continuously. The peasants increasingly want improved seeds. The demand for improved seeds grows ever larger.

Following the opening of markets, peasant desires for improved seeds have caused seed markets to prosper. However, in the many seed channels there are units or individuals who are irresponsibly selling seeds that have not been tested, demonstrated, and certified. This has led to the planting of outside seed varieties that are ill-suited to local conditions and decrease yields. For example, last June some individuals from the Wuwei elementary school in the Dinghu District of Si Xian purchased at the Jiagou grain station marketplace 30 tons of commodity soybeans from the Northeast. They resold them as seeds, which were planted on more than 3,000 mu. Because these soybeans had particular sunlight requirements, they were not appropriate for this area. The result was that production dropped more than 250,000 kg. The supply and marketing cooperating in Taihe County, Caimiao District, Gaomiao Township sold more than 5,000 kg of bluish dogbane seed, but only approximately 10 percent of it sprouted. After the seed was sown and few sprouts emerged, it turned out that the reason was that this seed had been improperly mixed with pesticide and fertilizer. In Suxian Jiagou District, a certain agricultural technician purchased 7,650 kg of wheat seed from a farm household in Suqian Xian Jiangsu, and then sold them at high prices of 1.5 to 2.5 yuan per jin with fancy names such as "Hybrid Wheat," "Over-Thousand-Jin-Yield," and "International No 1." He earned more than 10,000 yuan. But after local and county seed departments examined the seeds for certification, it was discovered that this seed was merely Jinan No 13 Wheat, which had already been planted in the area for many years. At present, seed distribution is carried out not only by the seed company but also by schools, agricultural stations, grain stations, hospitals, stores, warehouses, other companies, and individuals, including some cadres in party and governmental offices. According to a survey, there are as many as 43 separate units that offer seeds in Jieshou County. These involve unprofessional technical personnel, no testing, no storage equipment, and the seed distribution business is only to make money and secure large profits. Some individuals treat the promotion of business as separate from improved management. They note that the present policy is to open and promote buisness, and they are unwilling to pay attention to management. This has led to "anarchy" in seed distribution.

We feel that seeds are a special kind of commodity. They are an important, living material for agricultural production. They are indispensable. There are scientific and definite technical requirements in seed breeding, production, and marketing. The quality of the seeds directly influences the yield and quality of the crops, and also influences the peasants' annual income and the lives of entire families. Therefore, special attention should be paid to strengthening control of seed markets.

In order to protect the interests of the peasants and ensure the continued advance of agricultural production, we suggest that, first, seed control regulations should be established: 1) The importation, breeding, and distribution of agricultural seeds is to be centrally organized and controlled by agricultural seed departments. Neither departments that are not seed departments nor individuals are permitted to import, breed, or distribute seeds on their own. In the interests of promoting the seed business, those units and individuals who meet set conditions and first obtain the permission of seed-control departments above the county level can go the county industrial-commerical administrative management department and obtain a business permit for distribution ordinary seed and serving as a retailer of hybrid seed for a seed company. 2) Seed companies at the various levels should centrally arrange for the production and distribution of hybrid seeds whose production is highly technical in nature. Units that are not seed departments and individuals responsible for these arrangements are not permitted to engage in production and distribution. 3) The distribution of seeds must comply with the seed-quality standards established by the state. Seed-control departments above the county level have the right to spot check the quality of seeds sold at markets. All distributors are forbidden from selling substandard seeds, from misrepresenting poor quality as good quality, and from profiteering from substituting the false for the real. Those responsible for financial losses must pay for the losses. Criminal responsibility should be pursued in appropriate cases.

Second, full use should be made of seed companies at the various levels as the main channels for the marketing of improved seed. Comrades in the seed companies should work hard to establish a good seed-production base within their units. They should also improve testing and mechanized processing, and raise seed quality, "using quality in the competition for survival, using quantity to develop popularization." Finally, pertinent departments should closely coordinate improved control of seed markets.

12994/9835
CSO: 4007/299

SPECIALIZED HOUSEHOLDS 'NEED GREATER SPECIALIZATION'

Hefei ANHUI RIBAO in Chinese 3 Feb 86 p 2

[Article by Wang Shiju [3769 1102 5282]: "Specialized Households Should Pay More Attention to 'Specialization'"]

[Text] In recent years, specialized households in agriculture have appeared in great numbers. They have helped advance the structural adjustment of agricultural production. Some specialized households have become 10,000-yuan households, becoming the advance guard for the great masses of peasants who are moving together toward prosperity. All of this is to be celebrated.

The present problem is that many specialized households are not "specialized." They are too eager for instant gain. They frequently prefer the unripe over the ripe, the inferior over the superior, the close over the distant. The result is haste makes waste. Some specialized grain households go into the cities to set up booths to sell things. Some specialized forestry households spend their time selling scrap iron and steel. Some specialized poultry households go into the city to open restaurants. Some have become managers of handbag factories. Not a few specialized households have already gone bankrupt or face bankruptcy.

The reason that specialized households are not "specialized" is not completely due to the households themselves. They are supported and helped led to their mistakes. Some comrades feel that within their own jurisdiction the more numerous specialized households there are, the faster they develop, and the larger they are, the better. They ask that specialized households continuously expend and extend production operations: starting factories, yet taking on responsibility for horticulture; engaging in many different planting operations, yet operating stores; at the same time, providing educational, relief, and other public services. On top of this, the households are given many, many titles, far exceeding their ability to accept. The result is that operational management is chaotic, debts and losses large. Ambition exceeds capability. They want to stop but cannot. Here it is particularly worthwhile to mention that some cadres at banks and credit cooperatives have not performed thorough checks, have not studied objective conditions, have not analyzed feasibility factors, or have been afraid of hurting feelings, or have been unable to stand up to pressure, or have acted in their own private interests, and have blindly extended credits. This has not only increased the debt load on specialized households, increasing very large risks, it also has contributed to households leaving things to luck.

Specialized households must continue to expand. This is needed for the development of the forces of agricultural production. However, the expansion must begin with specialization and must raise specialization. Specialized households are distinguished from ordinary peasant households by their engaging in specialized work for which they have particular proficiency. This is the distinguishing characteristic of specialization. Therefore, specialized households must begin from this point. First, through their own hard work and great pains they must transform their potential strong points into actual strong points. The best ways from them to prosper are by continuously increasing yields, improving quality, reducing costs, expanding their competitive power in the marketplace, and working to increase the proportion of commercial production. As for those specialized households who are working with old techniques, they must catch up with the rapid progress of modern scientific knowledge. They must continuously acquire new knowledge, raise technical standards, strive to establish an invincible position in technique, and contribute to improving the forces of social production. Furthermore, in view of the fact that specialized households in agriculture are splitting off, they inevitably carry with them, due to historical reasons, the brand of the petty producers.

An important characteristic that they all share is that they do not pay strict attention to economic accounting, they do not record costs, they do not pay attention to efficiency, they lack the concepts of input and output, and they commonly rely on "good faith debt and credit" instead of scientific financial accounting. This is not suitable for future movement toward "10,000 yuan," or "several hundred thousand yuan," or "million yuan" economies. This problem already is an obstacle to the development of specialized households. In addition, specialized households must utilize timely market news and link up with production, supply, and sales channels so that they can quickly turn products into commodities. This is another important link in the development of specialized households. As for those "specialized households" that lack special technical abilities, they merely have the desire to become a specialized household and do not have a realistic, scientific attitude. These people can only rely upon pure effort to create conditions. They absolutely should not get jealous and envious of others and then act blindly and recklessly.

We do not deny that among the ranks of specialized households there are many that have many talents. We also do not deny the need for specialized households to have comprehensive operations. But the first thing that must be done is doing the basic job with ease and carrying out specialized household operations well. On a base of accumulated scientific and technological knowledge, funds, and management experience, there can then be gradual expansion into new areas of production operations, according to objective conditions. Consider, consolidate, and obtain benefits from each project. It must be fully affirmed that there are three objective processes of expansion for specialized households: from small to large, from few to many, and from low levels to high levels. If one wants to produce a golden hen, one should not be too hasty. As for support from state credits, these must be limited to assisting at the beginning when funds are short. Further development must depend on one's own accumulation. One should also gradually replenish one's own funds and repay loans according to a plan. This will help create funds to support newly starting specialized households and help even more households take the road to prosperity.

12994/9835
CSO: 4007/299

FOOD INDUSTRY DEVELOPMENTS REVIEWED

Beijing BEIJING RIBAO in Chinese 11 Feb 86 p 1

[Article: "Capital City's Food Industry Changes in Eight Ways During Sixth 5-Year Plan; Distinctive and Specialty Foods Increase by Over 500 Varieties"]

[Text] In the past 5 years, over 500 new varieties of distinctive and specialty foods have appeared in the capital. During the Sixth 5-Year Plan, Beijing's food industry has implemented a policy of coordinated development involving the state, collectives and individuals. Priority developments have resulted in eight changes.

Yearly Increases in Food Enterprises: Beijing's food industry has bee deregulated and revitalized through comprehensive planning and multiple operating establishments. Farming, industry, and commerce have developed in concert. The number of food-processing plants, outlets with in-house processing, collective production stations, and individual processing households of various types throughout the city has gone from more than 700 in 1980 to more than 1,500 in 1985. Specialized and jointly operated municipal-level food companies in various sectors of the industry have grown from 10 to 25. Moreover, diverse economic cooperatives have opened along with Chinese-foreign jointly operated food-processing enterprises.

Output and Output Value Continue To Rise: The gross output value for the municipality's food industry grew from 1.55 billion yuan in 1980 to 2.42 billion yuan in 1985, surpassing quotas set in the Sixth 5-Year Plan. Average annual growth was 9 percent. The proportion of food industry value to gross output value for Beijing's entire industrial sector bounced back from 5.8 percent in 1980 to 7.8 percent in 1985. Problems of severe shortages of food products have gradually eased in some cases. Output of pastries, vinegar, pickles, and grain-based products have gone up variously between 30 and 80 percent. Output of milk, beer, vermicelli, refined oil, and enriched flour have all more than doubled. Carbonated beverages and fruit juices have increased 10-fold.

Increased Variety and Improved Quality: The return to traditional distinctive products, development of new products and introduction of specialty foods from elsewhere have increased the total number of new products to over 500.

A total of 334 products have been designated by the city and ministry as superior products; 13, including Chinese burgundy, special-process beer, and red crab crunchy candy have won national gold and silver medals. Osmanthus wine has won international gold medals in Spain and France. Over 40 kinds of Beijing foods are exported to more than 10 countries and areas.

Pace of Technical Transformation Increases: Renovations and expansions were done during the 5 years in more than 260 food-processing enterprises. The total investment was more than 800 million yuan. More than 190 pieces (sets) of production line or individual operation equipment for processing of noodles, oleomargarine, bread, milk, and beer were imported from abroad, which consumed $130 million in foreign exhcange. This 5-year investment in Beijing's food industry was more than three times the total for the previous 30 years.

Achievements in Scientific Research: All sectors of the industry and related research institutes conducted more than 500 studies, 213 winning S&T awards. These achievements added to the new technology and equipment in the city's food markets, such as that to produce convenience foods, health foods, baby foods, and restorative foods. Of these, technology for new cultures for sour milk and crush-proof boxes for tobacco won prizes at Japan's Tsukuba International S&T Exhibition. Sour beancurd technology became Beijing's first food technology to be exported, and was sold to Japan.

Stress on Nuture of Technical Talent: Over the 5 years, 5 institutes set up departments to study the food industry, now with 440 students. Another 26 schools trained more than 2,000 vocational high and professional middle-school students. Furthermore, all sectors of the industry enlisted their staff and management cadres into classes and have gradually set up a technical management system.

Economic Policies Adjusted and Relaxed: Beijing's planning, financial, tax, credit, material, energy, and foreign economic departments utilized a number of economic levers and administrative measures and implemented preferential policies for development of food production which gradually has brought strength to this industry.

Enterprise Operational Management Improves: At the same time as food production is improving social returns, there have also been increases in economic returns and output value for these enterprises. Industry profits and tax revenues went from 250 million yuan in 1980 to 420 million in 1985. A total of 1.7 billion yuan was brought in by the state and these enterprises during the Sixth 5-Year Plan, which strengthened the economic punch of these enterprises and expanded subsequent capabilities for reinvestment.

12303/9835
CSO: 4007/306

WATER CONSERVATION MEASURES URGED

HK170723 Beijing CHINA DAILY in English 17 May 86 p 1

[Article by staff reporter Xu Yuanchao]

[Text] As Beijing faces its sixth successive year of drought, the city's critical water shortage is commanding urgent attention.

A Beijing Water Works Company official said the shortage was expected to ease by 1990 when a large water works being built in the city's northern outskirts was finished.

The 1 billion-yuan No 9 water works will be able to process 1 million tons of water a day, nearly half of Beijing's estimated consumption by 1990. The water will be supplied by Huairou Reservoir.

The first stage of the project is scheduled to be completed by 1988, supplying 500,000 tons of water a day to 4.5 million city residents, Feng Yiqian, deputy manager of the company, told CHINA DAILY.

This year, daily water consumption reached high summer levels in April, two months earlier than usual. Almost all pumps in the city's eight water works were working flat out to meet the rising demand, he said.

Beijing is short of 200,000 to 300,000 tons of water a day. The daily water consumption is 1.5 to 1.6 million tons, which will rise to 2.2 million tons by 1990. But the maximum possible water supply has dropped to 1.31 million tons a day this year from 1.37 million tons last year, the official said.

Beijing's reservoir and ground-water resources total about 4.7 billion tons. Since the 1970s the ground water level has been dropping at an annual average rate of one metre, which has reduced available supplies by 5 percent a year.

The city's water supply depends mostly on three large reservoirs--Miyun, Guanting and Huairou. Miyun and Guanting reservoirs have a combined 1.3 billion cubic metres of water at the moment, only 20 percent of their capacity, and a number of small reservoirs are drying up, according to Feng.

He said: "If Beijing has a drought next year, we will have to get tougher during the peak season."

He attributed the rising consumption to the rapid growth of industrial and agricultural production as well as the improved living standards of city residents.

He said: "If the peak season lasts too long, I'm afraid we will only be able to supply water to the third floor of buildings (without high-pressure pumps)."

Feng said the municipal government had drawn up a draft law that required the recycling of industrial water and regulation of irrigation for farmland.

The city government is taking measures to save water and urging residents to cut unnecessary consumption. Water-conserving equipment, such as special taps and toilets are being produced for apartment houses and other buildings.

/6662
CSO: 4020/327

GANSU PEOPLE'S DEPUTIES STRESS GRAIN PRODUCTION

HK141217 Lanzhou Gansu Provincial Service in Mandarin 2200 GMT 11 May 1986

[Excerpts] In discussing and examining provincial Vice Governor Hou Zongbin's government work report, deputies attending the Fourth Session of the Sixth Provincial People's Congress stressed the importance of train production. (Yang Zhixuan), a deputy from Zhangye, said that the province's Seventh 5-Year Plan has raised the target of a provincial grain output of between 6.25 and 6.5 million tons by 1990. To attain this target, strenuous efforts need to be made. The main problems now existing in grain production are: 1) Unauthorized occupation of arable land is becoming serious. The area of arable land is decreasing each year. According to relevant statistics, the area of arable land in the province has decreased by 7.02 million mu since the founding of the PRC. 2) Construction of water conservancy works has failed to meet the need. Poor management has seriously undermined the existing facilities. 3) Peasants are heavily burdened. Generally, they have to pay 50 to 60 yuan in various fees for 1 mu of land. 4) The province is deficient in agricultural technicians, particularly persons who promote science and technology on the frontline. He suggested that all prefectures and counties set up land management organs as soon as possible so that the organs can act as land vanguards.

Deputy (Wang Mianxiang) said that special attention should be paid to preventing and resisting natural disasters and efforts should be made to increase the province's capacity to resist natural disasters.

The deputies also said that it is necessary to take a correct view of individual economy. Some deputies believed that as a supplement to state-run and collective-run economy, individual economy also plays its due role in the province's economy. However, there are still some problems in the province in regard to developing individual economy. (Ding Lianzhang), a deputy from Lanzhou, summarized the problems as the following: 1) There is prejudice against individual operators in the society. 2) We have failed to help individual operators ideologically and organizationally, and have taken a laissez-faire attitude toward them. 3) Individual operators find it difficult to find places or shop spaces to do business. At present, some 26,000 individual operators in Lanzhou City cannot find places or shop space to start normal business. 4) There are various fees charged to individual operators. He suggested that the relevant departments check various types of charges and frees, examine accounts, simplify various procedures, and create conditions for the healthy development of individual economy.

/12232
CSO: 4007/406

GANSU

BRIEFS

EC AID TO GANSU--Brussels, May 16 (XINHUA)--The Commission of the European Communities today announced an aid package of one million ECUS (about 900,000 U.S. dollars) to help China's Gansu Province develop sugarbeet production. Under a program worked out by the two sides, the communities will assist this northwestern province of China to increase beet production so that it will attain self-sufficiency in sugar. The EC Commission will provide technological knowhow and equipment to the Academy of Agricultural Sciences of Jiuquan in the province, and help it train technicians in a bid to accelerate the research on sugarbeet growth. [Text] [Beijing XINHUA in English 1741 GMT 16 May 86 OW] /6662

CSO: 4020/327

PRICES, SUPPLIES OF PEANUT OIL, RICE REPORTED

Guangzhou GUANGDONG NONGMIN BAO in Chinese 19 Mar 86 p 2

[Article by Guo Hanjin [6753 3352 6930], under the rubric "Product Supply and Marketing News": "Peanut Oil Stores Up, Prices Drop; Rice Demand Surges, Prices Rise"]

[Text] Since the beginning of spring, the demand for husked rice in Guangdong has surged and the price has risen. Provincewide, the current average negotiated selling price for husked rice has risen to 37 yuan, up from 34 yuan at the end of 1985. For the time being, the rising trend continues. However, stores of peanut oil have increased 100 percent over the same period of 1985, and the price has declined. The market price dropped from 224 yuan per dan in the last third of January to 220 yuan in the last third of February. It is estimated that there will be a decline in price stability. The primary causes of the increased price of husked rice and the decreased price of peanut oil are as follows:

1. The revision of rural industrial composition has brought some reduction in the paddy growing area. In 1985 Guangdong reduced its paddy field area by 6.03 million mu, and paddy yield declined by approximately 3.6 billion jin. In addition, some areas were stricken by natural disasters that also had some effect on output.

2. The number of people engaged in industry and commerce rose and the nonfarming population proliferated. According to partial statistics, this factor alone necessitated negotiated purchases of 1 billion-plus jin of grain.

3. As time goes on, every use of grain in our society increases. Vigorous growth in the beverage industry, food industry, and husbandry industry has necessitated a large volume of negotiated grain purchasing.

4. There has been an increase in grain prices in other provinces. At the end of 1985 husked rice purchased from Hubei, Jiangsu, and Jiangxi sold for 26 to 27 yuan per dan. Now the price has risen to 30 to 33 yuan per dan.

The primary reason for the drop in the price of peanut oil is that nationwide peanut production grew 32.5 percent in 1985. There was also a slight increase in peanut production in Guangdong, so peanut stores have expanded. In addition, the spring season has just passed and everyday demand has declined somewhat.

Now, in order to stabilize market prices for grain and oil in Guangdong, all levels of the provincial food sector are actively gearing up, taking the initiative to organize the supply of goods from provincial and external grain-producing areas and do a better job of adjusting surpluses and shortages in negotiated purchases of grain and oil.

12510
CSO: 4007/372

MORE FAMILY FARMS REPORTED BEGUN ON STATE FARMS

Guangzhou GUANGDONG NONGMIN BAO in Chinese 19 Mar 86 p 1

[Article by He Zhenlu [0149 2182 2464] and Cheng Xiaoqi [4453 1420 3825]: "Over 200,000 Family Farms Operate in Guangdong's State Farm and Land Reclamation System"]

[Text] In restructuring the economic system, Guangdong's State Farm and Land Reclamation System has made use of its experience in rural reform and actively initated family farms for staff and workers, with considerable success. Now there are over 223,000 worker family farms operating in the reclamation area, and people number 378,000-plus: over 90 percent of all workers in agriculture and animal husbandry.

These worker family farms are economic entities under the leadership of state farms owned by all the people. The household (or joint household) is the unit of operation, and it practices family management, hands over a fixed quota to the higher authorities, and assumes sole responsibility for its own profits and losses. On many family farms, after production efficiency has been improved surplus labor has been employed in developmental production or to expand individual economic operations, and remarkable results have been achieved in increased production and income. In 1985, despite the disastrous effects of typhoons and flooding, gross income from productive operations on worker family farms still reached more than 833 million yuan.

The establishment of worker family farms also accelerated the restructuring of industrial composition on state farms and improved the percentage of marketable products. Right now, in addition to those contracted to grow rubber, there are also family farms growing over 1.15 million mu of sisal hemp, pepper, tea, fruit, and timber. In 1985 they produced a total of 6,300 tons of tea, 12,000 tons of sisal hemp fiber, over 22,000 tons of fruit, 900,000 tons of sugarcane, 100,000 tons of grain, 650-plus tons of fresh milk, and nearly 30,000 tons of meat.

12510
CSO: 4007/372

CONSTRUCTION BUREAU DIRECTOR INTERVIEWED ON WATER MANAGEMENT

Shijiazhuang HEBEI RIBAO in Chinese 13 Jan 86 p 2

[Article: "Conserve Water, Improve Management of Urban Water Resources; Provincial Construction Bureau Chief Li Han Answers Reporter's Questions Concerning Implementation of 'Regulations for Managing Hebei's Water Resources'"; date and place of interview not given]

[Text] After the provincial party standing committee issued "Regulations for Managing Hebei's Water Resources," Li Han [2621 3352] responded to this reporter's questions on implementing the regulations, and on getting a grip on urban water resource management and water conservation.

[Question] Why are we now giving so much attention to urban water resource management and to water conservation?

[Answer] Because Hebei's urban water resources are inherently insufficient, and society's demands for fresh water increase daily. Added to water wastage, this has produced a more and more severe water shortage situation. A primary way for solving this situation is to base ourselves on opening up new sources, and reducing usage.

[Question] How severe is the present urban water shortage?

[Answer] Each year the 12 cities organized in Hebei use 1.23 billion tons of water for daily life, industrial production and public use, and their suburban areas use 1.21 billion tons in agriculture, totalling 2.44 billion tons. But there are only 2.18 billion tons of water that can be used by the cities each year, or a 260 million ton annual shortage, averaging a daily shortage of 710,000 tons. At present, we meet the water requirements by over-exploiting groundwater.

[Question] Is there any harm in over-exploiting groundwater?

[Answer] There is tremendous harm in continuing to over-exploit groundwater. One thing is that the water table drops constantly, creating a large funnel area. As the water table drops, it increases the lift for pumps, reduces the amount of water produced, increases water consumption and increases the cost of providing water. A second is that the ground surface sinks, creating

[Answer] One is propaganda and instruction to make the masses conscious of water conservation. A second is the regulatory function of user prices, the supervision and urging of enterprises to do a good job in treating waste water and water recycling. The price of water conservation is dear, and we should progressively increase the price and collect fees from those who surpass a set amount or who surpass planned water use. A third is to actively popularize water conservation technology and experience, and the scientific and rational use of water.

[Question] What progress has been made in water conservation in the past few year?

[Answer] Since 1981, the provincial government has promulgated "Provisional Regulations for the Management of Hebei's Urban Groundwater," and "Provisional Regulations for Planned Water use and Water Conservation in Hebei's Cities," all cities have formulated concrete management methods, enhanced management, and gain striking achievements. According to statistics for 10 cities, from 1980 to 1984, while the output value of industrial production has increased 23 percent, water used in production has not only not increased, but on the contrary, has dropped 23 percent; the amount of water used to produce 10,000 yuan of output value has fallen from 689 tons to 426 tons. From 1982 to 1095 we have conserved 416 million tons of water, which is equivalent to the total amount of water used in the 4 cities of Baoding, Zhangjiakou, Natou and Qinhuangdao in 2 years. By setting up an examination and approval system for well digging, we have turned around the chaotic situation of arbitrary exploitation of groundwater. There is a 82 percent rate for those who have affixed meters to their wells, and a 70 percent rate for water meters in the home. The water use fees for the 9 cities administered directly by the province is nearly 10 million yuan, which has subsidized enterprises in building 251 water conservation projects, and the annual capacity for saving water has reached 108 million tons.

I am confident that from here on out through the conscientious implementation of the "regulations" we can further promote urban water management and the development of water conservation work, and attain even greater accomplishments.

12452
CSO: 4007/256

fissures. A third is that sea water percolates in, ruining the fresh groundwater resources.

[Question] Would you please say a bit about the long-term water shortage situation?

[Answer] We estimate that by the year 2,000, the cities will need 6.5 billion tons of water annually (including water for suburban agriculture), and estimate that in that period there will be 2.3 billion tons of water that can be used, making an annual shortage of 4.2 billion tons. For instance, suburban area agriculture will need 4.5 billion tons of water just for vegetable fields, which would still be an annual shortage of 2.2 billion tons.

[Question] Why do Hebei's cities have such a water shortage?

[Answer] There are many reasons for the urban water shortage. One is that we are short on water resources, and a second is that there is serious water wastage. The amount of water consumed by industry for each 10,000 yuan of output value produced is 40 percent higher than that of Tianjin and Beijing. According to 1982 statistics, every 960,000 tons of cooling water are discarded and not recovered and reused, and discharged directly into sewers. The phenomena of water run-off, water seepage, water leakages, and constantly running water are seriously widespread not only in plants but also in administrative units such as organizations, schools and shops and in household courtyards. Water wastage is extremely severe in those suburban agricultural irrigation works that still use earthen field ditches to transport water and old flood irrigation methods. And a third is that industrial water wastage is discharged untreated, polluting groundwater and reducing the limited groundwater that is up to standard more each day.

[Question] How can we solve the urban water shortage problem?

[Answer] The guiding principle for solving the urban water shortage is to give equal attention to opening new resources and to conserving the flow, and currently we must particularly emphasize water conservation. The basic method is to open Chang Jiang sources and realize "bringing water from south to north," but there is no hope for this in the near feature. Even if we could bring water from the Huang He, it would simply slightly alleviate the contradiction between supply and demand and could not fundamentally solve the water shortage problem. We must base ourselves on the local opening of resources and conserving of flows. THe focal point of conserving water used in industrial and agricultural production, and if we lower the water consumed in producing 10,000 yuan of output value in industry, including the electric power industry, to 300 tons, then we can save 420 million tons of water annually. And if the earthen field ditches for agricultural irrigation in the suburban areas are changed to pipes; and if we take ten percent of the irrigated area, and change it to sprinkler irrigation and change five percent to drip irrigation, we could save up to 540 million tons of water annually.

[Question] What measures should we take to conserve water?

RESPONSIBLE COMRADE INTERVIEWED ON GRAIN, OIL PROCUREMENT

Shijiazhuang HEBEI RIBAO in Chinese 7 Jan 86 pp 1,2

[Article by Jiao [3542 0948 4382]: "Seize the Opportunity To Work Hard and Make RApid Progress"]

[Text] January 6--Today, Shi Hengkai, Deputy Bureau Chief of the provincial Grain Bureau, responded to some questions raised by this reporter on current procurement and storage work for grain and oil throughout the province.

[Question] What is the current extent of storage work for grain and oil throughout the province?

[Answer] In the past 2 years, leading comrades at all levels of the party and government have given great attention to grain and oil storage work, augmented their leadership for this work and made grain and oil storage work one of the central tasks of the countryside, adopting a number of effective measures suited to local conditions and hastening the speed of getting things into storage. By January 3, we had accumulated 5,250 billion jin of grain put into storage for the whole year, or 77.2 percent of the province's procurement task. Of this, we had completed 60.8 percent for fall grain. And 146 million jin of grain and oil have already been put into storage or 76.8 percent of the task.

Using the prefecture and city as units, Hengshui prefecture has completed its fall grain procurement task and Chengde prefecture has completed its oil procurement task. Using statistics for county and prefecture units, there are 8 counties that have overfulfilled the local and city distribution task: Renxian, Nangong, Zanhuang, Xingtang, Kangbao, Guyuan, Shenxian and Luanxian; there are 17 counties and districts that have already completed the fall grain procurement task distributed to prefectures and cities: Daming County, Cixian County, Shexian County, Xingtai County, Shahe County, Longyao County, Julu County, Huailai County, Wuqiao County, Hengshui City, Jixian County, Wuyi County, Gucheng County, Jingxian County, Fengrun County, Tangshan City's new district, and Zhangjiakou City's suburban district; there are 13 counties and districts that have already completed the oil procurement task to be distributed to prefectures and cities: Pingshan County, Xinle County, Wuji County, Zhengding County, Gaocheng County, Fengning County, Weichang County, Luannan County, Qianxi County, Zhangbei County, Chicheng County, Tangshan City's Dongkuang district and Kaiping district.

There are also come counties that have been extremely late all along in procuring and storing fall grain. There are 35 counties that have only completed 20 to 50 percent of the fall grain procurement task up to the present, and 8 counties that have only completed 20 percent or less of the task. And of these, Baoding city's suburban district has only completed 0.6 percent Rongcheng County has only completed 2.8 percent, Ningjin County has only completed 6 percent, Anxin County has only completed 6.3 percent, Wangdu County has only completed 8.2 percent, Dingxing County has only completed 8.3 percent, Wanxian County has only completed 11 percent and Neiqiu County has only completed 11.9 percent.

[Question] What are the reasons that some places are currently slow in storing grain and oil?

[Answer] According to analyzes, there are two main reasons why some places in the province are currently slow in storing grain and oil.

One is because the work in some places has been very vague, satisfied with only general appeals, and lack thoroughgoing, painstaking thinking to launch work and organize storage work. Earlier, some areas were late in getting started, did not get a good handle on it and were slow in getting things into storage. Now party and government departments at all levels are paying a lot of attention and find that it is mainly the work of the grain departments that is not keeping up, and that there are some ideological and work problems. Some even now still stress threshing late, high moisture content, and have not launched the masses in threshing and drying in the air; some grassroots grain stations still sit waiting for procurement, and lack a detailed, meticulous organization of storage work, or even simply receive passively, letting the masses go back and forth hauling it, thus blunting the masses enthusiasm for sales; in a few areas the problem of detained loans has still not been solved; some have not put grassroots party rectification in the proper relationship with grain and oil storage work, attending to one thing and loosing sight of another, adversely affecting the opportune moments; and there are some places that have not put set purchases in the proper relationship with negotiated purchases, and the set purchase task disparity is very great, while negotiating the purchase of a lot of grain and oil.

A second is that in some places, the market price for grain and oil tends to be on the high side, increasing the difficulty of procurement; some areas excuse the masses for stinting in sales and have not gotten a good handle on their work, and have not actively, resolutely honored contracts, and organized storing grain and oil. Some lack situational instruction, some lack policy instruction and some lack instruction in the "five remembers when there is a bumper harvest." And some just sit by and watch grain and oil be washed away, do not actively take measures and have created a passive situation in storage work.

[Question] Based on the present situation for procurement and storage of grain and oil and the current problems. what measures should be taken?

[Answer] At present, we should take four measures.

One is to concentrate our strength, seize the opportunity and demand that grain and oil storage tasks be completed by early or mid-January. After any county unit has completed its contracted set purchase plan, it may open wide the procurement of grain remaining in the hands of farmers according to a proportional price, as long as the quality meets proper standards. Starting now, we must scramble for time and concentrate our strength to get a firm grasp on the last 20 days of the month to resolutely complete the tasks. The province's grain cadres, workers and staff must further mobilize, inspire enthusiasm, struggle arduously, focus time and get a good handle on putting grain and oil into storage. Every prefecture, city, county and township must examine and weigh in accordance with the high-marked task distributed by the province, and if task is still short, adopt some measures, speedily make arrangements and implement them, and resolutely honor commitments.

Second, classify leadership and stress doing well with work in two areas: one is to focus on large counties, townships, villages and households with many tasks, and on units with a rather large discrepancy in their completed tasks, and two is to focus on units with the prerequisites for surpassing more. There are 41 counties with fall grain storage tasks over 30 million jin, which is 60 percent of the province's storage task. We must bring together and dispatch work groups to units whose task disparity is rather large and those with the prerequisites for surpassing more, specifically analyze the reasons, handle the work there on site, and make the final decisions for solving the actual problems. Places that have already completed their procurement tasks and have the prerequisite to surpass more, must overcome the idea of "taking a breather," think about the needs of the nation, think about construction for the four modernizations, think about people in disaster areas, and actively organize the masses to exceed what is to be given in, call on the numerous farmers to aid four-modernization construction, aid disaster areas, sell more surplus grain and contribute more.

Third, grain departments should serve the grassroots, serve the masses and resolutely turn around the "bureaucratic commercial" work style of sitting and waiting for procurement. They must organize people to got down into the countryside to check quality, procure goods in the village, adopt various formulas and facilitate the masses' sending grain and oil into storage. The concrete issues of organizing work, checking quality and settling accounts, and sending goods into storage in the countryside procurement work should be appropriately solved in line with the principles of making things convenient for the masses and of neither the state nor the farmers being put at a disadvantage.

Fourth, grain departments should actively take the initiative is giving advice for local party and government leaders. After party and government departments have mobilized grain procurements, grain departments should get caught up in all aspects of work, and if some places are still taking their time, sitting back and waiting for others to call on them, and letting the masses go back and forth hauling, then we must resolutely seek out those responsible within the leadership there. We must seek out the proper relationship between grassroots party rectification and the work of getting grain and oil into storage, and move ahead with the work of getting grain and oil into storage through party rectification, and use completing the task of getting grain and oil into storage to test party rectification. Those places which still have not resolved the problem of detained loans should be reported to party and government leaders who should take decisive measures and immediately put a stop to it. Grain departments themselves should resolutely manage to have households deliver and settle the accounts, and promptly make good on commitments. Whether grain or oil, all areas that have not completed their procurement tasks may not have outside place or outside departments poke their noses in to purchase, and even less may they force up commodity prices rushing to purchase. Cotton oil from the southern cotton producing areas should be closely coordinated with supply and marketing departments, first ensuring the completion of the edible oil procurement task, and preventing oil plants from freely engaging in business and so affecting the completion of the cotton oil procurement task. At present all areas must conscientiously implement the spirit of the provincial bureau's circular, and are not permitted to ship it out of the province on their own authority without permission from the province, in order to guarantee grain for the province's industry and to meet market demand.

12452
CSO: 4007/256

SUN WEIBEN VISITS AGRICULTURAL INSTITUTE

SK181040 Harbin Heilongjiang Provincial Service in Mandarin 2100 GMT 17 May 86

[Text] The scientific research institute under the (Hongxinglong) Agricultural Administration Bureau has enhanced lateral economic and technical association between production and scientific research units in order to turn scientific results into productive forces as soon as possible and to make better contributions to developing the economy in land reclamation areas.

During his inspection tour of land reclamation areas, Suh Weiben, secretary of the provincial CPC committee, made a special trip to visit the scientific and technical personnel in the institute. He encouraged them to vigorously engage in their work with single-hearted devotion and to actively offer their intelligence and wisdom for the development and construction of land reclamation areas.

In order to turn scientific results into productive forces as soon as possible to promote economic development in land reclamation areas, the scientific research institute has established close lateral economic or technical association with a large number of state farms and production teams. Scientific and technical personnel from the institute have gone deep into farm fields, workers' dormitories, production groups or teams, and household-run farms to conduct guidance on applying scientific results. Thus, more than 30 scientific research results have been popularized among production activities in a short period, and more than 40 new and fine seeds of crops have been used by the production units, from which the new output value is worth more than 150 million yuan, representing 10 times the total funds appropriated by the state for the institute. Meanwhile, more than 40 new technical items with regard to carrying out planting or transplanting, raising animals and poultry, and operating farm machines, have been popularized or used. All of these have scored obvious economic returns.

After hearing the briefing given by the institute, leading personnel of the provincial CPC committee, including Sun Weiben and Wang Yusheng, held a forum with the scientific and technical personnel to solicit their opinions on the work done by the provincial CPC committee. Sun Weiben stated: Heilongjiang Province is endowed with abundant material resources. In turning the province's material strong point into that of the industries and economy, scientific research personnel should take the lead in the programs, assume heavy tasks, and have long-term targets. We should actively create conditions for bringing into full play their intelligence and wisdom in the programs.

/6662
CSO: 4007/414

GOALS SET FOR 'SPARK PLAN' FOR NEXT 2 YEARS

SK060921 Harbin Heilongjiang Provincial Service in Mandarin 2100 GMT 5 May 86

[Text] At the provincial rural scientific and technological work conference which was held on the morning of 5 May, (Li Zhengao), deputy director of the provincial science and technology commission, set forth three great goals of our province's spark plan and major targets for technological development.

The spark plan is a scientific and technological development plan set forth by the State Science and Technology Commission at the beginning of this year, with a focus on developing a number of projects that need less investment and can achieve faster economic results in a short period of time in order to serve the development of small and medium-sized enterprises, particularly town and township enterprises, and the rural areas and on taking the development of technology and training of talented persons for these enterprises and the rural areas and providing them with complete sets of technological equipment as the main contents. This year is the first year to carry out the spark plan.

Comrade (Li Zhengao) pointed out: In accordance with our province's reality, we have set forth the three great goals of our province's spark plan and the major targets for technological development for the next 2 years.

The three great goals of the province's spark plan are as follows: First, to organize scientific research departments, universities and small and medium-sized enterprises to study and develop 30 complete sets of technological equipment suitable for the countryside and the town and township enterprises; second, to establish 200 model town and township enterprises in terms of technology, which have internationally advanced technology and are able to provide their trades with complete sets of modern management and production techniques; and third, to train 150,000 management and technological personnel and skilled workers at different levels for the town and township enterprises and to ensure that they will become competent management and technological personnel of the modernized enterprises.

The major targets for the technological development in all fields are as follows: to raise animals and poultry; to develop farms for cultivation of aquatic products; to develop precision processing industry and technologies for keeping aquatic products fresh in the course of deliveries; to comprehensively use the native and special products of the mountainous areas and develop technologies for processing these products; to comprehensively use the agricultural and forest products and develop technologies for processing these products; to build new-type towns and villages with standardized factories and commodities in highlands; to develop new building materials; and to expand and apply new technologies and new materials.

Upon the completion of these projects, more than 80 million yuan of output value and more than 16 million yuan of taxes and profits will be created every year.

/9274
CSO: 4007/407

AQUATIC BREEDING DEVELOPMENTS DISCUSSED

Harbin HEILONGJIANG RIBAO in Chinese 24 Feb 86 p 1

[Article: "Developments in Aquatic Breeding during the Sixth 5-Year plan; 30 Percent Annual Growth Averages Provincewide"]

[Text] During the Sixth 5-Year Plan, the average yearly increase in Heilongjiang's output from fisheries was 26.8 percent. Last year the province produced over 66,000 tons of fish--a 2.3-fold increase over 1980. Of this figure, the average annual increase from aquatic breeding was 32.8 percent. As of the end of last year, the total output from aquatic breeding had reached 37,000 tons--a 3.2-fold increase over 1980. Total output from aquatic breeding now comprises more than 50 percent of total fishery output, something never before seen.

The upsurge in fingerling production and improvements in potential for self-sufficiency played an important part in the rapid upgrading of the volume of fish produced by aquatic breeding. There was a widespread increase in the volume of fingerling stocks on state-run fish farms. During the Sixth 5-Year Plan, several rural fish stock bases were set up one by one in over 300 locations in all regions. Over 30,000 mu of fingerling ponds were put into production. All locations also adopted new techniques of intensifying fall management and increasing oxygenation in winter, so that the province's level of self-sufficiency in fish steadily improved. Stocking of fish fry and fingerlings last year was up by over 25 percent from the year before. The proportion of large-sized fingerlings increased from 67 percent before the Sixth 5-Year Plan to above 85 percent today. Last year's fingerling output amounted to some 370 million fish, which provided for basic self-sufficiency.

Along with further policies of deregulation came a rapid growth in fish cultivation by the masses. As the rural reforms of the Sixth 5-Year Plan intensified step by step, the number of farmers raising fish increased all over Heilongjiang. There are now over 15,000 specialized fish-raising households in the province cultivating a total water surface area of over 450,000 mu. This is more than 10 percent of the province's total 4 million mu of surface water. Many such households have invested money and labor to improve economic returns from aquatic breeding.

During the Sixth 5-Year Plan, research facilities in all areas moved forward to disseminate up-to-date technology and strove to improve unit yields. Over the years, the province coordinated measures to disseminate techniques and equipment for biologically increasing oxygenation over the winter for high- and stable-yield aquatic breeding in ponds on the northern plateau. They also brought in new equipment and new technology, such as feed pellet machines. Gradually, unit yields for aquatic breeding improved. According to statistics the average per-mu yield on water surfaces practicing aquatic breeding last year reached 12.8 kg--up 23.1 percent from the previous year and a 100-percent increase from 1980. High yield examples appeared in the outskirts of both Harbin and Jiamusi which mark a new high in aquatic breeding yields for the province.

12303
CSO: 4007/344

BRIEFS

DROUGHT REPORTED--So far, many areas throughout Heilongjiang Province have been afflicted with severe drought. About 18 million mu of farmland have been stricken by the drought, of which 10 million mu have been seriously hit. [Excerpt] [Harbin Heilongjiang Provincial Service in Mandarin 2100 GMT 9 May 86 SK] /9274

WHEAT SOWING NEARLY COMPLETE--Wheat sowing in Heilongjiang Province is nearly completed. To date, the province has sown 27 million mu of wheat, accounting for more than 90 percent of the sowing plan. Mudanjiang, Suihua, Songhuajiang, Jiamusi, Qiqihar, and Daqing prefectures and cities have completed their wheat sowing. [Excerpt] [Harbin Heilongjiang Provincial Service in Mandarin 0900 GMT 4 May 86 SK] /9274

SPRING FARMING REVIVED--Harbin, 10 May (XINHUA)--After serious flooding in 1985, the counties (or districts) in Heilongjiang's Sanjiang Plain are now making every effort to restore spring farming. Consisting of 14 counties (or districts) under the jurisdiction of Jiamusi City, Sanjiang Plain boasts total arable land of over 14 million mu. It is one of China's important commodity grain bases. Last summer, the plain was inundated and the total output of grain and soybean decreased by 1 billion jin. In the wake of serious floods, Jiamusi City party committee and government called on the various counties and districts to make every effort to restore production within a year. Since the advent of spring this year, over 11,400 cadres have been sent to the rural areas to help peasants restore spring farming. [Summary] [Beijing XINHUA Domestic Service in Chinese 0715 GMT 10 May 86 OW] /9274

CSO: 4007/407

ESTIMATES MADE FOR MAJOR FARM CROPS

Changsha HUNAN NONGYE [HUNAN AGRICULTURE] in Chinese No 1, 1 Jan 86 p 3

[Article by Qu Yunbing [1448 6663 3521] of the Hunan Integrated Planning Office: "Estimates on Demand for Hunan's Major Farm Crop Varieties"]

[Text] Grain: The 1985 gross output for Hunan grain will be about 48 billion jin--down about 4 billion from 1984. Difficulties are projected for filling fixed-procurement contract orders. Reserve supplies will need to be tapped in part to handle needs of the urban populace, of industry, and to fill state requisition orders. For this reason, grain production must continue to be tackled. The province will require a total grain output at a sustained level above 50 billion jin in 1986.

Cotton: The 1985 planned procurement was 1.6 million dan. Total annual procurement is projected to break through 2.1 million dan while demand will be 1.6 million dan--meaning that yields are 50 million dan higher than sales. Excess cotton reserves will increase from 9.3 million dan to 14.3 million. The total excess reserves for the nation as a whole will also continue to increase. All areas should make appropriate reductions in cotton area in 1986.

Tobacco: Total planned area in 1985 was 800,000 mu and planned output 2.1 million dan, with 1.35 million dan actually planted and 2.8 million dan produced. Hunan's tobacco industry actually needs only 2 million dan. Output is 800,000 dan higher than sales. (However, supplies of quality tobacco are inadequate.) For the nation as a whole, yields were higher than sales by around 6 million dan. Tobacco is a single-use commodity. With amounts already in excess of demand, planting should be strictly carried out as directed by state planning. Efforts must be made to improve quality.

Jute and Ambari Hemp: A total planned planting of 260,000 mu was done in 1985, yielding 1 million dan (mature hemp). Actual planting was 820,000 mu and actual yield 3 million dan. But the province's burlap bag industry only requires 600,000 dan, which added to the hemp market and export, totals 1 million dan. There is no market for the other 2 million dan. Last year's jute and ambari hemp output exceeded the needs of society by 10 million dan. From now on, farmers will be required to sign contracts with government purchasing units and produce the amount contracted for.

Ramie: Due to a surge in demand in the hemp-weaving industry and for export, the price has gone up. Farm enthusiasm for planting ramie is high; and development has been rapid. Last year, planting went from 138,000 mu to 454,000 mu. Yields increased from 280,000 dan to 459,000 dan. Hunan's hemp-weaving industry currently requires 500,000 dan of raw material, and will require 700,000 dan in 1990. Most of the present 454,000 mu are newly expanded and have low yields. When they are up to par in 1 or 2 years, total output may reach approximately 1 million dan. What are the nation's current export prospects for hemp-woven products and superior [4737 1626] hemp? This requires further projections. For this reason, the area planted in ramie cannot be expanded indefinitely.

Ceroil Crops: In 1985, the province had a total yield of 80 million dan of vegetable oil, which was an increase of 330,000 from 1984. Supplies on the edible oil market cannot meet demand; and vigorous development is needed.

12303/9835
CSO: 4007/306

HUNAN

BRIEFS

RAPESEED HARVEST --Beijing, 7 March (XINHUA)--Hunan province in central China has reaped four million tons of rapeseed, an all-time high and a 20 percent increase over 1985. It has also harvested 510,000 tons of grain, 25,000 tons more than last year. [Excerpts] [Beijing XINHUA in English 1216 GMT 7 May 86 OW] /12232

FISHERY FINANCE --Beijing, 7 May (XINHUA)--The World Bank has lent nearly 55 million yuan to the Hunan Provincial Government to develop fisheries, today's ECONOMIC INFORMATION reported. Part of the money will be used to build a fish farming, processing and cold storage center at Dongting Lake, the second largest freshwater lake in China. [Excerpts] [Beijing XINHUA in English 1201 GMT 7 May 86 OW] /12232

CSO: 4020/323

NI XIANCE HEADS JIANGXI LAND IMPROVEMENT TEAM

OW192306 Beijing XINHUA Domestic Service in Chinese 0100 GMT 19 May 86

[Commentary by reporters Huang Zhenggen and Xiong Dianda]

[Excerpts] Nanchang, 19 May (XINHUA)--The first phase in the comprehensive development and improvement of the Gan Jiang Valley and Poyang Hu area has started in Jiangxi Province. It is an important component in our country's land improvement work and will have an important bearing on Jiangxi's economic development.

At the beginning of this year, the Jiangxi Provincial People's Government formally established a leading group for the development and improvement of the Gan Jiang Valley and Poyang Hu area, headed by Governor Ni Xiance, and formed a team of experts. The Chinese Academy of Sciences, Shanghai's Jiaotong University, the Jiangxi Provincial Science and Technological Commission, and scores of other units, with some 100 experts and scientists, have been actively supporting and taking part in the work. Comprehensive investigations on agriculture, industry, energy, ecological distribution, communications, and irrigation in the major river and lake areas have already begun, and other work, including the setting up of an information center and a computer storage data bank, are being promptly carried out.

When Premier Zhao Ziyang inspected Jiangxi in September 1984, the leading comrades of the Jiangxi Provincial People's Government reported to him a tentative plan for the comprehensive improvement and development of the Gan Jiang Valley and the Poyang Hu area. Comrade Zhao Ziyang highly approved the idea and offered specific suggestions.

The State Planning Commission and the province have appropriated special funds for the work. The meeting to study the development of the Shanghai Economic Zone, which will be held later this month, and the "Discussion Meeting on the Strategy for China's Socialist Economic and Social Development," to be held jointly by the State Scientific and Technological Commission, the State Economic Commission, the China Association for Science and Technology, and other units in July this year, will expound and discuss special topics on the comprehensive development and improvement of the Gan Jiang Valley and the Poyang Hu area.

/6662
CSO: 4007/414

JIANGXI

BRIEFS

GRAIN ENTERPRISES INCREASE PROFITS--Last year, grain and edible oil industries, commercial enterprises, feed, food, and storage and transport enterprises in Jiangxi earned more than 133 million yuan in profits, an increase of 38.3 percent over last year. Because expenses for transport, interest, etc., greatly increased, total losses for the grain industry decreased by more than 2 million yuan over last year. Last year, grain departments in Jiangxi concentrated on the development of the "five industries". The grain and oil industry gave 20,920,000 yuan to 52 key projects for technical transformation and to develop new products, polished rice, refined flour and oil and raised the production capacity of foreign exchange earning products; profits earned for the year were 53,650,000 yuan, an increase of 36.2 percent over last year. After improving market forecasts, expanding horizontal relations, opening up and developing domestic and foreign trade, commercial grain and oil enterprises realized a profit of 52,520,000 yuan for the year, an increase of 55.28 percent over last year. Last year, the sales volume of grain and oil food products was more than 168 million kilograms. To develop the "five industries", the province imported advanced technical equipment from abroad, and launched 73 economic and technical cooperation projects with 11 cities, and 12 colleges and scientific research units. [Excerpts] [Beijing ZHONGGGUO SHANGYE BAO in Chinese 25 Mar 86 p 2]

CSO: 4007/404

BRIEFS

SPECIALIZED HOUSEHOLDS INCREASE--Based on statisitics as of today, specialized forestry households in Jilin have increased from 35,000 in 1983 to 266,000, an increase of 7.6 percent. In 1984, the province afforested 4.5 million mu, and specialized households accounted for 45 percent of this. In the spring of 1985, the province afforested 2,478,000 mu, and specialized households accounted for 76 percent of this. [Excerpts] [Beijing ZHUANYEHU JINGYING BAO in Chinese 29 Mar 86 p 3]

AGRICULTURAL EXPORTS--As of the end of March, Jilin had exported 750,000 tons of corn, accounting for 26.8 percent of the annual plan; 30,000 tons of sorghum were exported, accounting for 150 percent of the annual plan; 30,000 tons of beans were exported, accounting for 30 percent of the annual plan. [Excerpts] [Changchun JILIN RIBAO in Chinese 18 Apr 86 p 1]

GRAIN PURCHASING CONTRACTS--The work of signing contracts for purchasing grain and oil-bearing crops was finished by mid-April. About 84.3 percent of the province's total number of peasant households have signed contracts with the state grain departments. A total of 6.544 million tons of unprocessed food grains are involved in the purchasing contracts, overfulfilling the state assigned target by more than 60,000 tons. [Text] [Changchun Jilin Provincial Service in Mandarin 0930 GMT 9 May 86 SK] /9274

JILIN SPRING FARMING--According to statistics of the Jilin Provincial Agriculture Department, the province has sown 48.398 million mu of field crops as of 4 May, accounting for 91.8 percent of the planned acreage. [Excerpt] [Changchun Jilin Provincial Service in Mandarin 0930 GMT 4 May 86 SK] /9274

CSO: 4007/408

JIANGSU

BRIEFS

DOMESTIC COTTON IMPORTS--Due to natural disasters in 1985, cotton output and quality declined in Jiangsu. There have been severe shortages of first and second-grade cotton. To meet the needs of textile mills in the province, this year Jiangsu will import 400,000 dan of cotton from other provinces; 150,000 dan will be imported from Xinjiang. The cotton imported from Xinjiang will be distributed to 21 textile mills in the province. [Excerpts] [Beijing NONGMIN RIBAO in Chinese 29 Apr 86 p 2]

CSO: 4007/412

REFORM MOTIVATES LIAONING PEASANTS TO STUDY

OW150546 Beijing XINHUA in English 0532 GMT 15 May 86

[Text] Shenyang, 15 May (XINHUA)--"Three years ago technical courses on fruit trees bored me. But now I find I can't tear myself away from the lectures," "32-year-old peasant woman Yu Yueqin said with a laugh.

Yu said the reason for the change in her attitude is that she is now responsible for 134 peach and apple trees in her village in northeast China's Liaoning Province. This means that her income now depends directly on the crop of the fruit trees.

Three years ago, before the responsibility system was practised in the village's orchard, Yu got little benefit from the harvest.

Yu told XINHUA that she earned more than 5,000 yuan last year by growing peaches and apples with the technical knowledge she had learned by going to lectures given by local fruit tree experts. The sum was much more than the average per capita annual income in China.

And she is only one of the many peasants in Liaoning, and in China as a whole, who have become knowledge-thirsty during the rural reforms carried out in recent years in China, which feature the responsibility system.

According to provincial officials here today, 5.13 million of Liaoning's more than 9 million young and middle-aged peasants have taken courses on agrotechniques. And another 3 million are currently attending courses run either by their villages, townships, counties, or by the province.

The courses cover such fields as crop and fruit growing, poultry raising, fisheries, building, transportation, commerce, cooking, sewing, and photography.

About 191,000 of the peasants who have received training are earning an annual income of 1,000 yuan, more than the average in rural areas.

/12232
CSO: 4020/323

NINGXIA

BRIEFS

NINGXIA SHEEP FARMING--Yinchuan, 5 May (XINHUA)--Four areas in central Ningxia Hui Autonomous Region are to sepcialize in raising Tibetan sheep for the local food and woolen industries, according to an official in this regional capital. Ningxia is already China's leading producer of Tibetan sheep, and Yinnan Prefecture has 80 percent of the region's total. The wool of the sheep is white and soft, and its meat is very popular. Regional authorities have decided to set up four specialized sheep-farming centers in Yanchi, Tongxin, and Linwu Counties in Yinnan. The centers will draw up their own long-term development plans and make efforts to boost production. [Text] [Beijing XINHUA in English 1730 GMT 5 May 86 OW] /12232

CSO: 4020/323

QINGHAI COMMENTARY ON IMPROVING ANIMAL HUSBANDRY CONDITIONS

HK081516 Xining Qinghai Provincial Service in Mandarin 2230 GMT 7 May 86

[Station commentary: "We Must Make Efforts to Improve Conditions for Animal Husbandry"]

[Text] In mid-October last year, some of the province's counties and townships in Yushu, Golog, and Haixi Prefectures experienced serious natural disasters caused by heavy snowfalls, which not only severely tested the masses and made them draw profound lessons from this, but also put to the test the province's basic construction for animal husbandry for the past 30-odd years.

From this examination by nature, we have come to the following conclusion: The continuous development of animal husbandry is vulnerable if we do not improve the conditions for animal husbandry and do not put an end to the backward situation of raising animals by depending on the weather.

Located on the Qinghai-Xizang Plateau, the province has poor natural conditions. Over the past 30 years, the province's livestock numbers dropped sharply on three occasions. The main cause was natural calamities. In the decade between 1975 and 1984, the province's pastoral areas experienced natural calamities through snowfalls three times, as well as natural calamities caused by drought. In these natural disasters, the province lost more than 7.28 million animals.

For a long time in the past, the province's livestock numbers dropped sharply whenever there was a serious natural calamity, fell slightly when there was a small-scale natural calamity, and increased slightly when the year's weather was favorable. This was a passive situation. How could we put an end to such a situation? Through much practice and scientific research work, the province's animal husbandry research workers and herdsmen have found some effective ways of combating and preventing natural calamities, as well as ensuring the continuous development of animal husbandry production. Since 1980, Haibei has strengthened capital construction in grasslands and actively introduced the practice of rotation grazing at herdsmen's settlements, and improve their production and living conditions. On production and operation, it advocated voluntary animal husbandry production and gradually switched the focus of the industry from the number of livestock onto work efficiency. These production measures have effectively strengthened the industry's capability of combating and preventing natural disasters. Therefore, animal husbandry production in the autonomous prefecture has constantly developed over the past 6 years. According to incomplete statistics, the autonomous prefecture has had 620,000 mu of land fenced, over 30 percent of the livestock provided with sheds, and 40 percent of the livestock housed. Over the past 6 years, the average annual growth rate of livestock was 23.3 percent while the rate of livestock removed from inventory and that of livestock taken as commodities were 18.7 and 12.3 percent respectively. The per capita income of herdsmen increased from 259 yuan in 1980 to 720 yuan in 1985.

The experience of Haibei Autonomous Prefecture in constantly developing animal husbandry demonstrates that given poor natural conditions, we can help strengthen our capability of combating and preventing natural calamities by making efforts to improve the production conditions and reforming the traditional ways of living and production. Thus, we can achieve a constant development of animal husbandry production.

We hope that the cadres and herdsmen in the pastoral areas will seriously draw lessons from the natural disasters caused by snowfalls. They should bestir themselves, emulate the deeds of the advanced, and guide the production of animal husbandry. They should gradually replace animal husbandry's natural economy with that of commodity economy and switch the focus of the industry from the number of livestock to work efficiency, switch from the practice of raising livestock by depending on the weather raising livestock by building up grassland, and switch from a single-product animal husbandry to a diversified one so as to promptly find a way of developing industry on the Qinghai-Xizang Plateau.

/12232
CSO: 4007/406

GOVERNMENT ADOPTS MEASURES TO EXPAND PORK SALES

HK141209 Xian Shaanxi Provincial Service in Mandarin 2330 GMT 11 May 86

[Excerpts] To ease the contradiction between the production and sales of pork and to arouse peasants' enthusiasm for raising pigs, the provincial government has recently decided to take six measures to further expand pork sales. The six measures are as follows:

1. We must vigorously transport pork to other provinces. The provincial Commerce Department and all prefectural and city commerce bureaus and food companies must immediately dispatch competent cadres to other provinces to promote the sale of pork.

2. We must introduce priced pork coupons to replace the 1-Yuan monthly pork allowance allocated from central revenues to nonagricultural residents in the second half of this year. The residents can use the coupons to obtain pork, including cooked pork or [words indistinct], from state-run meat sales points when the coupons are introduced. Commercial departments must ensure the quality of the pork and are not allowed to sell unsanitary pork to the people.

3. To arouse the enthusiasm of pork retailers for dealing in pork sales and to encourage collective-run catering service units and individuals to buy as much pork as possible, pork retailers will be exempted from business taxes for 5 months, from 1 May to 30 September. Grassroots pork sales points must give a 1 to 2 fen award to every staff member or worker for each 1 jin of pork sold. This applies to the sale of frozen pork only in large and medium cities.

4. Commercial departments must promote the sales of pork in flexible and various ways.

5. We must skin as many pigs as possible.

6. To help peasants sell their pigs, state-run commercial units must fulfill the task of procurement of 400,000 pigs before the end of June. While grasping the procurement, they must purchase at negotiated prices 100,000 to 150,000 pigs in Guanzhong, Hanzhong, and Shangluo Prefectures.

The production of pigs and the supply of pork is a prime issue concerning industrial and agricultural production and the people's daily life. The provincial government has demanded that principal leaders of governments and relevant organs at all levels personally deal with the matter and firmly grasp the production and sales of pork as an important task.

/12232
CSO; 4007/406

BRIEFS

SHAANXI PIG PROCUREMENT--According to NONGJIA XINSHI BAO [PEASANT MESSENGER], the provincial Commercial Department plans to procure 1.6 million pigs this year. The method of procurement by contract will be applied, with contracts firmed up for each household involved. A certificate of procurement will be issued for each pig, and this certificate will be produced by the peasant when the time comes to sell the pig. The aim of this is to resolve the peasants' difficulty in selling pigs. In addition, 120 jin of fodder and 50 jin of low-priced high-quality chemical fertilizer will be supplied for each pig cold. A number of pigs can also be procured outside the contracts by expanding sales and so on. Fodder and chemical fertilizer will not be supplied for the sale of such pigs. [Summary] [Xian Shaanxi Provincial Service in Mandarin 0100 GMT 10 May 86 HK] /12232

CSO: 4007/406

RURAL WOMEN BENEFIT FROM TECHNOLOGY

OW211752 Beijing XINHUA in English 1518 GMT 21 May 86

[Text] Jinan, May 21 (XINHUA)--Participants from Asian countries to a seminar on women in agriculture and rural development were attracted by the efforts made by technical workers and veteran farmers in east China's Shandong Province to extend agrotechniques to women.

Dong Xiuju, chairman of the Women's Federation of Shandong Province, said that rural women, traditionally receiving less education than men, make up 46 percent of the farm laborers of the province and are in urgent need of technology to get rich.

She said that China boasts agricultural technology extension stations of five levels including the nation, province, prefecture, county and township, which mainly introduce seed, fertilizer, plant diseases, insect pest and livestock technology.

The agricultural scientific research units focus on applied research, and the scientific findings are chiefly judged by their social benefits.

To enable the rural women learn one or two techniques, extension workers hold short training classes for women on tailoring, animal raising and product processing during the slack seasons.

In 1985, over 50,000 specialized classes were held in Shandong Province and about 1,860,000 women attended them.

Scientific and educational films, newspapers and broadcasts are also used as ways to popularize science and technology.

Various research societies have been set up in the province, specializing in vegetables, peanut growing and the raising of long-haired rabbits. Among these organizations, women count for 25 percent of all the members.

/6662
CSO: 4020/331

SHANDONG

BRIEFS

FARM MACHINE SALES--As of the end of February, the province had sold 8,114 tractors, an increase of 15.7 percent over the same period last year. Because the price of large and medium-sized tractors is high and it is difficult to raise funds, the number of medium-sized tractors sold decreased and the number of small tractors sold increased. As of the end of February, sales of irrigation and drainage equipment dropped 21.4 percent over the same period last year. Diesel tractors had the largest decrease, sales dropped 35.4 percent. [Excerpts] [Beijing ZHONGGGUO NONGJIHUA BAO in Chinese 16 Apr 86 p 3]

CSO: 4007/404

SHANXI GOVERNOR ON AGRICULTURE, LATERAL TIES, POOR AREAS

HK100131 Taiyuan Shanxi Provincial Service in Mandarin 2200 GMT 9 May 86

[Excerpts] Governor Wang Senhao stressed in his report on the draft of the province's Seventh 5-Year Plan that agriculture is the foundation of the national economy and grain is the foundation of the foundation. This is our unswerving strategic principle.

He said: Although Shanxi's grain production rose quite rapidly during the Sixth 5-Year Plan, the amount of grain available per person is still below the national average. During the Seventh 5-Year Plan, we must be resolved to stabilize an area of 21 million mu of steady and high-yielding farmland, an average of 1 mu per head of the rural population. We should attain in outline the goal of producing 9.5 million mu of grain, representing 340 kilograms per person.

Under the premise of ensuring steady growth in grain output, we must rationally readjust the rural production structure in the light of local conditions and achieve corresponding development of industrial crops such as cotton, oil-bearing crops, and sugarbeet, forestry, animal husbandry, sideline occupations, and fisheries, and rural industry. We must extensively plant grass and trees to develop animal husbandry and build green surface treasury. We must rationally exploit our mineral resources such as coal, to build a black underground treasury.

In invigorating the rural economy, we must continue to rely on the policies and on science. We should adopt the following measures to increase agricultural income:

1. During the first 2 years of the Seventh 5-Year Plan, investment in agricultural capital construction should account for 10 percent of the province's disposable capital construction investment. In the last 3 years of the plan, this proportion should rise to 12 percent.

2. Ten percent of our investment in technological transformation should be used in agriculture.

3. Spending on agricultural undertakings in 1986 should rise by 7 percent over 1985, and appropriately increase year by year in the future.

4. We should continue to make arrangements during the Seventh 5-Year Plan for the subsidies for building the mountain regions, which were started in 1983.

5. We should use for supporting agriculture a portion of the tax on the increased income of the township enterprises and of the increase in their industrial and commercial tax.

6. The finance departments at all levels must increase investment in agriculture as far as possible.

7. Within the rural economy, we should vigorously develop township enterprises and promote diversification, using industry to subsidize agriculture.

Governor Wang Senhao stressed that vigorously developing lateral economic ties is a focal point in structural reform this year. This must be grasped as an important project. We should develop ties spanning different areas, departments, trades, and provinces. In particular, we should develop ties between urban and rural areas, between military and civilian industries, between science and technology and production, and between industry and commerce and agriculture and commerce in the circulation field. In this way we can further invigorate the economy.

Governor Wang Senhao pointed out that during the Seventh 5-Year Plan it is essential to help the poor areas to transform themselves. First, we should strive to solve the food and clothing for households in serious difficulties within 1 or 2 years. On the basis of extricating them from poverty, we should then help them to get rich. We must map out comprehensive development plans based on the actual conditions of the poor areas. By 1990, the average annual income of the peasants in a number of poor counties should reach or approach the provincial average level.

/12232
CSO: 4007/406

SHANXI

COTTON OUTPUT, PROCUREMENT PROSPECTS DISCUSSED

Taiyuan SHANXI NONGMIN in Chinese 15 Mar 86 p 1

[Article: "Shanxi Supply and Marketing Cooperative Vice Chairman Qiao Fengbao [0829 7685 1405] Says in 1986 All Cotton Produced Will Be Purchased"]

[Text] Recently a SHANXI NONGMIN reporter interviewed Qiao Fengbao [0829 7685 1405], vice chairman of the Shanxi Supply and Marketing Cooperative Economic Agency, regarding prospects for cotton production in Shanxi.

In discussing the state of cotton production in Shanxi, Qiao said that we have no surplus of cotton, rather we have an insufficient amount. Every locality must vigorously expand cotton production in accordance with the state plan. When we revised industrial composition in our vast cotton districts in 1985, we made suitable reductions in cotton field area. On top of this, we were struck by natural disasters that resulted in a major decline in cotton yield. The entire province sold less than 1 million dan of commodity cotton to the state, falling 700,000 dan short of fulfilling the state plan. We also had a fairly large deficit of industrial cotton and cotton for everyday use in Shanxi.

In discussing Shanxi's cotton production prospects for 1986, Qiao said we may produce a vast amount of cotton. Shanxi's 1986 cotton procurement quota is 1.7 million dan, and the province passed this responsibility on to the various cotton districts at the beginning of the year. We can tell the cotton farmers unequivocally that the state will buy all the cotton they produce, and no difficulties in selling cotton will arise. Contract cotton will be purchased at the state-stipulated inverse 4:6 price ratio, and cotton in excess of the contract will be procured at par.

When asked what efforts the supply and marketing cooperatives should be making in this area, Qiao said that, right now, based on satisfactory dissemination of policy propaganda to cotton farmers, supply and marketing cooperatives at all levels must be organized by local governments to coordinate with departments concerned and consienciously accomplish contract procurement tasks. Contracts must not be apportioned based on population or on land; they must be signed directly with cotton farming households. Moreover, implementation of contracts with major cotton planters must have priority. Next, the cooperatives must resolutely carry out state policies to reward cotton farmers for sales: within the contract quantity, for every jin of cotton sold to the state they must supply farmers, at par, with 1 jin of top-quality standard chemical fertilizer. Simultaneously, supply and marketing cooperatives at all levels must provide good preproduction, production, and postproduction services for cotton, and the priority must be on supplying production goods and materials needed by cotton farmers. The cooperatives must coordinate with the rural financial sector, grant some support credit, and cooperate with departments concerned to give prompt guidance on technology, management, and insect damage control. Postproduction, they must be active in supplying cotton farmers with picking, drying, and processing equipment. Furthermore, Qiao emphasized that in cotton procurement the supply and marketing cooperatives must curb incidences of forced price or grade undervaluation. As soon as such occurrences are detected, in addition to dealing with the person responsible, the cooperatives must give the cotton farmers reasonable compensation.

12510
CSO: 4007/372

TIANJIN

BRIEFS

TIANJIN PEASANTS' LIVELIHOOD IMPROVED--According to a recent statistical report released by the Tianjin Municipal Statistics Bureau, the per capita net income of the peasants of the municipality in 1985 was 564 yuan, an increase of 14.3 percent over that of 1984. So far, the per capita net income of 2.7 percent of the total peasant households is below 200 yuan. [Summary] [Tianjin TIANJIN RIBAO in Chinese 2 May 86 p 2 SK] /9274

CSO: 4007/408

XINJIANG FULFILLS GRAIN, OIL PURCHASE QUOTA IN ADVANCE

HK090925 Urumqi Xinjiang Regional Service in Mandarin 1200 GMT 8 May 86

[Excerpt] According to the regional grain department, by the end of April, the region had basically fulfilled the task of fixing quotas for purchasing grain and edible oils. Compared to last year, the region completed the work a month ahead of schedule.

The region's task of fixing quotas for purchasing grain and edible oils this year is marked by four characteristics:

First, many prefectures and autonomous prefectures implemented the task of assigning quotas down to key grain production areas, as well as specialized and major households engaging in grain production. Therefore, they expedited the work of assigning quotas. In such key grain production areas as Ili, Tacheng and Changji alone, the amount of grain purchase quota was increased by 100 million jin.

Second, localities in general attached importance to the work of fixing quotas for purchasing maize, so that this year's growing area of maize was increased by over 200,000 mu compared to last year.

Third, when making contracts for the purchase of grain and edible oil, most localities also took into consideration the work of propagating the policy of purchase, expanding the growing area and helping peasants solve problems in their production.

Fourth, the region announced that this year's contracts on grain and edible oil will not be changed in the next three years. This will thus dispel the peasants' worries when growing grain. It is understood that in addition to fixing quotas for purchasing wheat, rice and maize, the region fixed quotas this year for purchasing barley, kaoliang, broad bean, pea and mung bean.

/9274
CSO: 4007/408

DECISION TO RAISE AGRICULTURAL INVESTMENT REPORTED

Summary of Provincial Resolution

Beijing RENMIN RIBAO in Chinese 11 Mar 86 p 2

[Article: "To Strengthen the Fundamental Status of Agriculture and Enhance the Effects of Farm Development, Yunnan Resolves To Increase Assorted Agricultural Investments"]

[Text] In accord with the spirit of 1986 Central Government Circular No 1, and in light of the weak agricultural foundation in Yunnan, the provincial party committee and the provincial government have recently issued a resolution to strive to increase local agricultural investment and promote improvements in material and technical agricultural conditions.

The primary substance of this resolution is as follows:

During the Seventh 5-Year Plan the ratio of provincial agricultural expenditures to total expenditures must be quickly restored to its 1980 level. Proceeding from this base, future agricultural expenditures must increase in step with total expenditures.

Beginning in 1987, 20 percent of total capital construction investments, whether from the provincial budget or arranged through private fundraising, must go to capital construction on farmland. As part of this, capital construction of water conservancy facilities must be rapidly restored to 1980 levels. In general, the proportion of prefectural and county investment in capital construction on farmland should exceed that of provincial investment.

The province, prefectures, and counties should arrange operating expenses in each agricultural sector so that they are not lower than proportions recorded for 1984. Where they are lower, in 1986 we must restore them to 1984 levels and, proceeding from this foundation, increase them in step with total expenditures.

The province, prefectures, and counties must all establish agricultural science and technology extension funds. During the Seventh 5-Year Plan 15 million yuan per year will be set aside from Yunnan's public finances to form a provincial agricultural science and technology extension fund. Of this, 8 million yuan will be used for planting (not including tobacco), 2 million yuan will be used for funding to develop new techniques, and 5 million yuan will be used to popularize significant scientific and technological achievements. Prefectures and counties should also establish these kinds of funds.

Beginning in 1986, 10 percent of funding at all levels for technological innovation should be used in agriculture. As for the three costs of science and technology, at the prefectural and county levels these will be applied primarily in agriculture, and at the provincial level over three-fourths will be so applied. Counties will retain all slaughter taxes to support animal husbandry. Increases in township enterprise income taxes and industrial and commercial taxes will be used in part for agriculture.

Over 50 percent of funding to aid underdeveloped regions will be used for agriculture.

Funds set aside by higher authorities for agricultural uses must be earmarked for specified purposes only and may not be otherwise used.

To improve funding results, Yunnan's provincial party committee and central government also stipulated methods for enhancing fund management.

Commentary on Local Mobilization

Beijing RENMIN RIBAO in Chinese 11 Mar 86 p 2

[Commentary: "Local Areas Must Also Mobilize"]

[Text] In order to strengthen the fundamental status of agriculture within the national economy and enhance agricultural results, the central authorities have decided to increase their investment in agriculture progressively. The central government is mobilized, and before this undertaking can be carried through local areas must mobilize as well. The reason for this is that investments made by the central government can for the most part only be used to construct key, large-scale, farmland water conservancy projects. To set up small and medium projects we must still depend upon local investment and community fundraising. The 1986 Central Government Circular No 1 explains this point explicitly: "To the greatest degree possible, local coffers must set aside a larger share of funds for agricultural investment in order to reverse the trend of progressive decreases in local agricultural investment." "As quickly as possible we must restore water conservancy investment to the level it occupied in 1980, when it was a matter for public finance."

It is not only essential, but also completely feasible to increase local agricultural investment. Several years ago, when the central government began to contract responsibilities to local public coffers so as to "serve meals at different hearths," agricultural, forestry, and water conservancy investment costs were included. Therefore, the "meal" of agriculture should be served at the "hearth" of local public finance. In the wake of production development in the past few years, the situation has clearly improved for the vast majority of local public coffers, and many locales have considerable surpluses. However, many other places not only have failed to increase agricultural investment, on the contrary they have appropriated that portion of contract funds for other uses. This must be corrected promptly.

We cannot continue to pay lip service to agricultural importance while in practice we gratuitously appropriate agricultural investments for other uses, nor can we continue merely to demand that the central government increase its investment while the local areas make major cuts in agricultural investment. As we continue apace with the four modernizations under conditions of funding scarcity, we can only ensure a desirable trend of sustained agricultural growth if we join in a common effort at all levels, work hard in many areas, and continuously increase essential agricultural investment.

12510
CSO: 4007/325

KUNMING MEETING REAFFIRMS POLICY ON HOUSEHOLDS GETTING RICH

HK011115 Kunming Yunnan Provincial Service in Mandarin 1100 GMT 29 Apr 86

[Excerpt] According to YUNNAN RIBAO, in connection with the situation in the rural areas where the major and specialized households were afraid that the policies would be changed and their thinking had become less bold than before, the Kunming City CPC Committee and Government in mid-April invited some representatives of the two types of households which have made achievements in developing commodity production and have influence on the masses to attend a forum. At the forum, the City CPC Committee and Government helped them dispel worries and become bold in attaining prosperity.

At the forum, (Wang Xintian), secretary of the City CPC committee; (Da Wenzheng) and (Yu Shicheng), deputy secretaries of the City CPC Committee; and (Sun Gan), deputy mayor, reaffirmed that the development of the two types of households was a long-term policy which will not be changed.

The forum was attended by more than 50 people.

Some of them asked whether the presently stressed propaganda of helping the poor in order to achieve common prosperity was a sign that the policy would be changed. The Kunming City party and government leading comrades stressed repeatedly that by no means is the work of achieving common prosperity and helping the poor a sign that the party would soon change its policy of allowing some people to get rich first. Common prosperity means that all people will attain prosperity together. This has long been advocated by the party, as well as being the goal of our struggle. However, common prosperity does not mean simultaneous prosperity. Some people are allowed to get rich first and the rest will catch up with them later. Only when some people get rich first and set examples for others can we achieve common prosperity sooner. Therefore, the practice of allowing some people get rich first and the goal of achieving common prosperity are consistent.

The aboluste majority of Kunming's households that have gotten rich are good ones. They attained prosperity by running businesses, working hard, and observing the law. In the past, we guided and encouraged them to get rich. We shall continue to do so in the future. Now, the number of Kunming's rural households that have attained prosperity is too small not too big. We must adopt various methods to encourage and support more peasants in becoming rich sooner. We should commend those who lead the masses to achieve common prosperity, should protect those who attain prosperity with their individual labor, and should guide those who get rich by illegal means. We should lead them to develop in the direction of attaining prosperity by bringing the masses with them and by working hard.

Through the discussion on the present situation and policies, the representatives had their worries dispelled and became vigorous in their work.

/9274
CSO: 4007/408

YUNNAN

BRIEFS

TEA EXPORTS--In the first quarter of this year, foreign exchange earned from tea exports in Yunnan was more than $6.8 million U.S., a 108 percent increase over the same period last year. During the 6th 5-Year Plan, the area planted to tea in the province was 1.7 million mu, an increase of 240 percent over the beginning period of the 6th 5-Year Plan. Last year, foreign exchange earned from tea accounted for one-sixth of the total foreign exchange earned in the province. [Excerpts] [Beijing RENMIN RIBAO (OVERSEAS EDITION) in Chinese 23 May 86 p 3]

CSO: 4007/412

END

JPRS-CAG-86-024

23 JUNE 1986

China Report

AGRICULTURE

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-024

23 JUNE 1986

CHINA REPORT

AGRICULTURE

CONTENTS

NATIONAL

Chen Wei Explains Accounting Concepts
(Chen Wei; HEBEI RIBAO, 19 Jan 86)........................ 1

Rural Credit Cooperatives Better Managed
(NONGGUN JINRONG, 1 Dec 85).............................. 5

Means to Diversify Economy of Undeveloped Areas Explored
(Pei Xiaolin; NONGYE JISHU JINGJI, No 12, Dec 85)......... 7

S&T Needed To Develop Agriculture Production
(Lu Liangshu; NONGMIN RIBAO, 15 Feb 86).................. 13

Restructuring of Forestry Along Lines Used in Farming Needed
(Wang Youchen; NONGYE JINGJI WENTI, 23 Dec 85)............ 16

Scope of Forestry Responsibility System Expanded
(Yang Zhong; NONGMIN RIBAO, 4 Jan 86)..................... 27

Shortfalls in Timber for Agriculture Expected
(NONGMIN BAO, 2 Jan 86).................................. 29

ANHUI

Increased Revenues Derived From Tobacco Sales
(Ma Biling; ANHUI RIBAO, 25 Dec 85)....................... 30

BEIJING

Briefs

Aquatic Products Down in Beijing 31

FUJIAN

Briefs
Sugar Output 32

HEBEI

New Credit Policies Reported by Agricultural Bank
(Li Ruicha; HEBEI RIBAO, 1 Apr 86)........................ 33

Management of Water Resources Mandated
(HEBEI RIBAO, 27 Dec 85).................................... 36

Regulations Published 36
Commentary on Regulations 42

Stable Increases in Grain Emphasized
(Tian Jijin; JINGJI RIBAO, 16 Jan 86)..................... 44

HUNAN

Problems in Grain, Cash Crop Mix Discussed
(Wang Shouren; NONGYE JISHU JINGJI, No 3, Mar 86)......... 46

JIANGXI

Briefs
More Grain, Cash Crops 52
Export of Farm Products 52

LIAONING

Outlook for Agriculture During the Next 20 Years
(Zhao Tianfu, Zhao Rui; NONGYE JINGJI, No 6, Dec 85)...... 53

NEI MONGGOL

Use of Machinery in Farming, Animal Husbandry Increasing
(Chen Xiaojun; NEIMENGGU RIBAO, 28 Nov 85)................ 63

NINGXIA

New Extension Efforts Successful in Disseminating Technology
(Fan Xuehong, Li Yong; NINGXIA RIBAO, 23 Dec 85).......... 64

SHAANXI

Briefs
Forests Seeded by Air 66

SICHUAN

Aquatic Industry 'Requires Major Development'
(SICHUAN RIBAO, 23 Feb 86)................................... 67

Peanut Market, Production Improvements Explored
(Tao Meichuan; SICHUAN RIBAO, 28 Mar 86).................. 70

Continuous Development of Swine Production, Sales
(SICHUAN RIBAO, 21 Feb 86)................................... 73

Briefs
Sichuan Largest Pork Supplier 75
Rural Savings 75

YUNNAN

Greater Incentives To Grow Grain Rather Than Cash Crops Urged
(Xu Liangdong, Sun Guoqi; YUNNAN RIBAO, 28 Mar 86)........ 76

Program Outlined for Improving Tobacco Sales
(Li Liangsheng; YUNNAN RIBAO, 28 Mar 86).................. 78

Briefs
Rural Savings 83

/12675

CHEN WEI EXPLAINS ACCOUNTING CONCEPTS

Shijiazhuang HEBEI RIBAO in Chinese 19 Jan 86 p 3

[Article by Chen Wei [7115 0251] of the staff of the Hebei Provincial Statistical Bureau agricultural office: "Questions and Answers About Some Important Indices of Agricultural Economic Returns"]

[Text] 1. What is "total value of rural social production"? Is it the same as total value of agricultural output?

[Answer] Total value of rural social production refers to the total value of social production that is created by rural productive operations. It is the total quantity of goods produced and turned into currency by the five departments of material production: agriculture, industry, construction, transport, and commerce. At present, China has yet to officially make clear the standards for distinguishing cities and villages and for drawing concrete boundaries between them. Currently, villages still fall within the statistical category of the rural people's communes that existed before government and commune offices were split. From the township and village levels and below, all value of production from productive activities in the five areas described above--agriculture, industry, construction, transport, and commerce--that is carried out by cooperative economic organizations or rural households is listed as the total value of social production. Although state farms are not included, the total value of their agricultural production also should be included, according to unified national guidelines.

From this it can be seen that the total value of agricultural output is only one part of the total value of rural social production. Those who regard the total value of agricultural output as the total value of rural social production are wrong.

2. What is "the total value of agricultural output"? What are its components?

[Answer] The total value of agricultural output is the total quantity of agricultural products that are commercialized. This includes agriculture, forestry, animal husbandry, sidelines, and aquaculture. Agriculture (the cultivation of plants, or "planting", consists of two parts: the total value of production of primary plants (such as grain, cotton, edible oils), and the total value of sideline products (such as plant stalks). Forestry consists of three parts: the total value of the wood grown in tree farms, of wood products, and of the bamboo trees cut by rural households or by cooperative economic organizations at the village-level and below. Animal husbandry consists of four parts: the production value of large and small domestic animals that are reproduced and grown, the production value of livestock that are raised, the total value of living animal products, and the total value of products from other animals that are raised. Sideline products consist of three parts: the total value of wild plants collected (including medicinal plants, firewood, etc.), of products from captured wild animals, and of rural families' joint operations with industry (refers to those that do not meet the four standards of industry--those preparing the four standards ought to be included within the total value of industrial production). Aquaculture consists of two parts: the total value of all natural aquatic products that are obtained and of all aquatic products which are cultivated.

When calculating the total value of agricultural output, it must be kept in mind that purposes vary and the prices used vary. In order to reflect the amount of value of products for a particular period (year), one should use current prices. Constant prices should be used to compare with the past. At present, the national unified prices are in 1980 constant prices. (If comparisons are made to the value of production in a year before 1980, one must first convert the values into 1980 constant prices.) Current prices and constant prices are different. Generally speaking, current prices are somewhat higher than constant prices. In some places, in order to double the value of output, constant prices are used for the base period (such as 1980), and then current prices are used for constant prices in the period of report (such as 1985). The degree of increase in total value of agricultural output cannot be compared in this kind of calculation and is wrong.

3. What is "net value of agricultural production"? What connection does it have with total value of agricultural output?

[Answer] Net value of agricultural production refers to the new value created in productive labor, during a set period, by agricultural laborers working in agriculture (including the five industries of agriculture, forestry, animal husbandry, sidelines, and aquaculture). It is an important component of national income. There are two methods for calculating the net value of agricultural production. One method is the production method. First, accurate calculation is made in current prices of material consumption in agriculture, then the material consumption in agriculture is subtracted from the total value of agricultural production. The result is the net value of agricultural production.

There are a number of specific items that fall under material consumption in agriculture. In general, they can be divided into three groups: a) that which is consumed in the course of production (such as seeds, feed, fertilizer, fuel, etc.); b) depreciation of fixed capital used in the course of production (such as agricultural machines and tools, equipment, draft animals, and production buildings); and c) expenses incurred by the laborers during the course of production (such as repair fees for machines and tools, production management fees, transport fees outside of production, etc.).

The second method of calculation is the distribution method. This involves an initial distribution of items based on the net output value of agriculture; the net output value of agriculture is composed of items distributed the first time. These items generally can be divided into remuneration for laborers within agriculture, savings, taxes paid to the state, profits, and interest. From this it can be seen that the net value of agricultural production and the total value of agricultural output are two separate concepts. The total value of output includes the total value of products, including those that are materially consumed (materials transformed by labor). The net value of production is the new value created by laborers after material is transformed by labor. The meaning of the two concepts is different. They cannot be interchanged.

4. What is "gross income"? Is it the same as total value of output?

[Answer] Gross income is the income from operations in a set year by a unit (including rural industries, collectives under unified management, new joint economic operations, and rural household operations) which can be used to meet that year's expenses. It is also the income distributed between the state, collectives, and peasants from agriculture, forestry, animal husbandry, sidelines, aquaculture, transport, commerce, restaurants, services, and other operations, as well as interest and rents and other non-production income. But it does not include income that cannot be distributed, or income that is borrowed or only temporary, such as income from loans, or pre-sale deposits, or state investments, or peasant investments, etc.

It should be clear that gross income and total value of output are two entirely different indices. Their scope, methods of calculation, and prices used are completely different. They cannot be interchanged. Some people regard total value of output as the same thing as gross income. This clearly is mistaken.

5. What is "net income"? How is per capita net income calculated?

[Answer] Net income is the portion of income left after all expenses are subtracted from gross income for a given year. Net income is also called distributed income. A portion of it is turned over to the state in the form of taxes. Another portion is kept for the use of the collective in the form of collective reserves. The remaining portion is the peasants' income. This method of calculation is one that is used at the time of collecting data about the entire situation. There is another method of calculation when surveying rural household registration. This begins with the above-mentioned sources of income, then adding all income that is not a loan (including remittances sent home from people working outside, the income from professional wages, income obtained from the state financial administration, income obtained from the sale of property, income from the gifts of relatives and friends, etc.). The former items can reveal the level of net income obtained by the peasants through productive operations, and the latter items can reveal the peasants' actual standard of living.

It can be seen from the above that gross income and net income are entirely different. Gross income includes all kinds of expenses. Net income does not include all kinds of expenses. It is that portion that can be distributed. It cannot be confused with the other concept. When calculating per capita net income, attention should be paid to the fact that the net income calculated by subtracting expenses from gross income cannot be used directly in dividing the year-end distribution for the participating population (now called the rural population). Instead, total net income, less taxes and the portion of "peasant income" held in reserve, should be divided by the annual average population (generally, the population at the beginning of the year, plus the population at the end of the year, divided by two, is a method that can be used).

12994/9871
CSO: 4007/277

RURAL CREDIT COOPERATIVES BETTER MANAGED

Beijing NONGGUN JINRONG [RURAL FINANCE] in Chinese No 23, 1 Dec 85 p 29

[Article by Credit Department, Agricultural Bank: "Savings and Loan Operations in Rural Credit Cooperatives Are Flourishing"]

[Text] Beginning this year, under the leadership of the Agricultural Bank, China's rural credit cooperatives have conscientiously implemented the stipulations and spirit of the Central Committee's 1985 Document No 1. They have supported reforms and revitalized the economy. At the same time tht they have broadly organized rural funds, they have also strengthened review of questionable loans and actively pressed for repayment of overdue loans. They have worked hard to support the financial needs stemming from the adjustments in agricultural production structures and in the development of agricultural production. They have played an important role in state implementation of controls on the macroeconomic level and in revitalizing the economy on the local level.

According to statistics compiled through the end of September, China's rural credit cooperatives had remaining sums of 65.44 billion yuan, an increase of 2.95 billion yuan over the level in the early part of this year and an increase of 920 million yuan over the same period last year. Within this total there was 51.8 yuan in individual peasants' savings deposits that were collected by the credit cooperatives, which was an increase of 7.11 billion yuan over the level in the early part of this year and an increase of 2.57 billion yuan over the same period last year, which was an increase of 47.4 percent. The principal reasons for this large increase in peasants' savings compared to the same period last year are the following: 1. The rural economy has expanded and peasant incomes have increased. Peasants have relatively more idle funds on hand. This has provided the material basis for credit cooperatives being able to organize individual peasants' savings. 2. The state has continuously raised the rate of interest paid for deposits. The savings policy has motivated the broad masses of peasants to save. 3. In order to attract idle and scattered funds from villages, expand rural savings, increase the financial strength of credit cooperatives, and ease the strain on rural funds, the broad numbers of credit cooperative staff members, credit station representatives, and cooperative member representatives have shirked hardships and gone door-to-door in the villages, promoting the savings policy and providing warm service.

As for loans, because all credit cooperatives have conscientiously adhered to the spirit of restricting the scale of credit and tightening monetary policy, 48.83 billion yuan in loans were made. Although this represents an increase of 6.8 billion yuan over the total made last year, loan collection is better than in any year in the past. Between January and September, 37.39 billion yuan was repaid, an increase of 14.49 billion yuan over the same period last year. . The remaining sum of loans was 46.89 billion yuan, an increase of 11.44 billion yuan over the level earlier in the year but an increase that was 7.69 billion yuan smaller than that of the same period last year. Particularly good results have been obtained in controlling loans to township and town enterprises. At the end of September, the remaining sum of loans to township and town enterprises was 16.40 billion yuan, a 2.92 billion yuan increase over the beginning of the year which was an increase of 2.24 billion yuan over the same period last year. Looking at credit cooperative loans to township and town enterprises throughout the country, those that deserved approval have been approved, those that deserved to be limited have been limited, and those that deserved to be terminated have been terminated. This is due to firm implementation of the regulations and policies of the Agricultural Bank and their falling within the scope of state macropolicies. Starting with the premise that the scope of loans should be more tightly controlled, these policies provide for the stable and healthy development of township and town enterprises.

As for loans to specialized agricultural households, especially large households, some credit cooperatives at the beginning of this year did not handle credit policy very well and made some bad loans to large specialized households. This put an added strain on rural finances. But since the second quarter of this year credit cooperatives have implemented the policies and spirit of the Agricultural Bank's centralized regulations. Control over loans to large specialized households has been strengthened. Deadlines have been set for repayment of bad loans. This has fundamentally changed the past phenomenon of large specialized households supporting themselves on loans.

At the same time, rural credit cooperatives should shift a considerable portion of idle deposits to the state Agriculture Bank. As of September, credit cooperatives had transferred 28.29 billion yuan to the Agricultural Bank (this includes the transfer of 18.33 billion yuan in preparatory funds). This is a drop of 9.53 billion yuan over the same period last year. This has been a major contribution to bank implementation of state macrocontrols and microvitalization of central credit entities.

At present, the broad masses of staff members in China's rural credit cooperatives are at work studying closely documents concerning the CPC Congress. They are expanding socialist and materialist construction, uniting beneficial opportunities that arise in the course of work during the busy season in rural finance. They are using various measures to promote rural savings and to collect overdue loans according to policy. They are continuing to improve the reforms and implement tighter controls on the scope of credit. They are following the principles of not expanding the scope of credit, of revitalizing the economy, and of supporting agricultural production. They are doing a good job in credit work in order to make still larger contributions to the prosperity of the rural economy.

12994/7051
CSO: 4007/244

MEANS TO DIVERSIFY ECONOMY OF UNDEVELOPED AREAS EXPLORED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 12, Dec 85 pp 30-32

[Article by Pei Xiaolin [5952 1420 2651], Planned Economy Research Institute, State Statistical Commission, "Preliminary Exploration of the Industrial Stage of Economically Undeveloped Rural Areas and Measures For Dealing With the Situation"]

[Text] 1. Industrial Stage of Economically Undeveloped Rural Areas

Generally speaking, all industries that produce primary products are primary industries; the various kinds of processing industries are secondary industries; and tertiary industries are largely the various kinds of service trades. In China, Nei Monggol and most of the western provinces and regions are basically in the primary industrial stage, the output value of primary industries amounting to 96 percent or more. This is the first industrial feature of this area. The second characteristic is that the quality of primary industries remains at a fairly low level and is manifested in a low level of output as in the case of the farming industry, for example, in which the output value equals only one-fifth that of Zhejiang Province. In terms of area sown, grain yields per unit of area amount to only one-half those in Jiangsu and Hunan provinces. Second is a low commodity rate, such as in rural Guizhou where the commodity rate for primary industries is only 20 percent, which is only half that of Hubei and Jiangsu provinces. Reasons for these characteristics are as follows: First is a low rural labor productivity rate; second is a low level of investment of materials; and third is a poor environment for production. Consequently, in economically undeveloped rural areas, the input-output production function curve continues in a rising stage; not only is potential for increases in output great, but for a considerably long time to come there will be no trend toward incremental decrease in remuneration.

The current situation in economically undeveloped rural areas is the relatively low quality of the three key elements in the productivity system, namely workers, the means of labor and the objects of labor. They are interrelated and exhibit no outstanding differences. Performance of the three key elements is relatively low. The degree of their social integration in the labor process is also relatively low; however, they are coordinated are without marked differences. Their basic evenness of quality and their basic coordination in function has conversely strengthened the stability of the existing structure within the system.

The socio-economic system in undeveloped rural areas is doubly blocked off. Most primary industry products may enter directly into the consumption area to satisfy people's needs for clothing and food. These areas are not subject to regular influences from the outside world but possess a stable ability to survive at a low level of self-sufficiency. Most economically backward rural areas are located in border areas, in mountains, or in old, young or poor areas. Geographically, they are located in high or remote areas where communications are not well developed, and the flow and exchange of people, financial and material resources and information within the system is restricted to an extremely great degree. This also inhibits the link up and concentration of these elements within the system and gives rise to numerous sub-systems of low performance that never come in contact with each other. The doubly blocked off nature of the system intensifies the close-knit structure existing within the system and attenuates the process of change in the structure.

2. Ways of Dealing With Industries In Economically Undeveloped Rural Areas

The largest and most universal problem that economically undeveloped rural areas face today is not inadequate food and clothing. Experiences gained in partially developed and developed areas shows the development of grain production first, and only after there is a surplus of food and clothing is there a change toward a large scale readjustment of the industrial structure and changes in the industrial structure. There is no other road that undeveloped areas can take. Is it possible to solve problems in having sufficient food and clothing through direct readjustment of the industrial structure or through development of large quantities of products that can be exchanged? My view is that it is possible in special areas, but that it is not possible in most areas. The main way for undeveloped areas to solve problems in having sufficient food and clothing remains reliance on development of local grain production or animal husbandry production. A notion prevalent nowadays holds that undeveloped areas simply cannot become self-sufficient in grain. This is a lopsided view. Our survey and analysis shows that both the western and southwestern parts of the country will be gradually able to achieve self-sufficiency during the Seventh 5-Year Plan and the Eighth 5-Year Plan.

Measures for dealing with the situation by main industries in economically undeveloped rural areas at the present time should be to strive to increase yields per unit of area for grain and pasturelands for the livestock industry while maintaining the ecological balance and a benign ecocycle. Cultivated land in undeveloped areas consists largely of intermediate and low yield fields requiring only more efforts with fine varieties, chemical fertilizer and water. Potential for increases in grain yields per unit of area are greater than in partially developed areas and in developed areas.

I believe that the stage for large scale readjustment of the structure of industries in economically undeveloped rural areas has not yet arrived. Large scale readjustment of the structure of industries requires three minimal pre-conditions as follows: First is sustained and steady provision of adequate food and clothing with some surplus. Second is the emergence of a tendency toward relative incremental decrease in input-output payback in the objects against which labor works such as fairly high grain production or livestock production and commodity rates per unit of area. This requires the opening of new more economically effective objects of labor. Third is the presence of a certain amount of surplus labor forces and surplus funds, the manpower and financial resources to exploit new objects of labor being in existence. These three pre-conditions are not yet fully present at the present time in economically undeveloped rural areas. A surplus of goods and clothing is the most fundamental pre-condition for readjustment of the industrial structure. If there is inadequate food, the growing of cash crops will be virtually impossible. Even if a trend toward incremental decrease in input-output remuneration has taken place in grain production, it may still be possible to compel forcibly its continued development. Inadequate food and clothing restricts, in and of itself, restricts the development of exchange and makes it difficult to bring about further increase in cash earnings and to develop in the direction of high consumption in which people eat and dress well. This is to speak in terms of the general nature of the contradiction. It is also to say that most undeveloped areas still have to develop their grain farming industry and livestock industry first in order to obtain a surplus of food and clothing; only then can they carry out a readjustment of the structure of industry. However, to speak in terms of the special nature of the contradiction, there are really some areas that are capable of solving the problem of sufficient food and clothing more quickly and better through readjustment of the structure of industries. If some areas have no advantages for the growing of grain, it will be very difficult for them to increase yields per unit of area. By changing to the growing of cash crops or the development of orchards from which they can obtain high yields, their cash earnings will also be high and they will be able to buy the grain they need fairly readily. Not only will this very quickly solve problems with food and clothing, but they will be on the road to becoming prosperous. Some places have no money at all, so they do not fertilize their fields, with the result that grain yields can never rise. If they develop a brewing industry, they can get the money to increase investment in chemical fertilizer and they can use the dregs from the brewing process to feed hogs whose dung they can use to fertilize the fields and grain yields per unit of area will go up very quickly. In still other areas where the ecological foundation has been destroyed, the more they try to grow grain, the less able they are to solve their food and clothing problems in a vicious cycle. By withdrawing land from cultivation and returning it to forests, to pastureland or to fisheries while farming intensively the good land that remains, they can increase grain yields per unit of area, revive and build a benign cycle among farming, forestry, animal husbandry, sideline occupations and fisheries throughout the ecology for solutions to the problem of sufficient food and clothing. Our contention that the stage for large scale readjustment of the structure of industry in economically undeveloped rural areas has not yet arrived does not mean that there can be no readjustment. Small scale or partial readjustment of these areas is still necessary and is being regularly carried out. Whenever such a possibility exists, opportunities to carry out readjustments should not be missed. In short, readjustments of the internal structure of primary industries in economically undeveloped rural areas should be subordinate to and should serve the growth of industries with a primary character. Such readjustments should benefit rise in yields per unit of area from grain production or livestock production and in commodity rates, and they should benefit a benign economic and ecological cycle.

First, readjustment of the structure should be both objectively necessary and not just a subjective desire. Necessary means economically and ecologically necessary, and feasible means that people's skills, the means of labor, funds and environmental conditions are able to handle and are suited to the new objects of labor. If there are no objects of labor of this kind, or if there are but there is no feasibility, then one can only return straightforwardly to the familiar work of the old objects of labor since the existing objects of labor are the foundation for economic development. Second, readjustment of the structure requires attention to a combination of benefits derived from individual parts and to overall benefits and a combination of near-term and long-term benefits that helps growth of the overall industrial quality. Growth of quality includes both materials and people. Looked at in terms of long-term development, human growth should be the main goal that we pursue. Translated in terms of backward areas, this is the growth of the consciousness and abilities of people in commodity production. Only through the growth of people can the economic development of undeveloped areas possess the most fundamental energizing agent and power.

In order to attract technology and capital from elsewhere to exploit local resources and to develop new vigorously developing industries, during the initial period economically undeveloped rural areas have to adopt a "policy of letting others make a fair profit." If the west is to facilitate the fairly large scale spontaneous transfer to western regions of technology and capital, it will have to provide economic inducements to people in the east, so they genuinely feel there is "gold" to be panned. Mutual assistance between east and west has to be on the basis of mutual benefit and mutual interest; however, at first, the lion's share of profits has to go to those who provided help in the east. This is because they are trailblazers who should derive benefit from pioneering. Because they are commodity production teachers, they should receive a teaching fee. Because they are complex laborers with a mastery of skills, they should receive a high payback. Because they came bearing funds to invest, they should reap extra bonuses. This is the only way in which the natural resources of the west which have been in a deep sleep for 1,000 years can be exploited for use, the only way in which the consciousness and capabilities of peasants in the western region can multiply and grow, the only way in which the commodity economy in rural villages in the west can flower and flourish, and the only way in which the double economic and natural blocking of the western region can be demolished quickly. The benefits that the west derives can be greater than the profits that the east obtains. These benefits are of great political significance and their economic effects are far reaching. Certainly, in the future the west will have real strength in skills and capital, and the distribution of profits will naturally undergo change.

Inasmuch as economically undeveloped rural areas are still primarily in an intermediate stage of development of primary industries for the most part, the policy of major industries at the moment should be to impel primary industries to develop from being immature to being mature. Once primary industries are mature, the transition to being secondary industries for the most part will take place in the natural course of events. However, it is because primary industries are in the intermediate stage for the most part that laborers, the means of labor and the objects of labor remain at a fairly low level. The production methods of primary industries decide, in turn, the slow speed of growth of the three. Therefore, economically undeveloped rural areas must establish a psychology of fighting a protracted war and understand clearly the different starting points for economic development in different areas. The different stages of industry in different areas decides objectively obvious differences in their speed of development. In the face of such a stark reality, people are unable to effect change through an act of will. They can only acknowledge it and face it squarely, work from the speed of existing industries and conscientiously set about doing the basic work required. They will be able to realize a "take off" more rapidly later on.

One positively cannot have any illusions about undeveloped areas being able to transcend the speed of the stage of development of a local economy and being able to emulate the "take off" speed that one has observed in recent years in economically developed rural areas.

3. State Policies For Industries in Economically Undeveloped Rural Areas

For a fairly long time to come, the focus of state support to economically undeveloped rural areas should be on the food growing industry, the grassland animal husbandry industry, forestry, and mining among primary industries in order to give impetus to the development of primary industries in these regions from immaturity to maturity. Practice has shown an extremely small success rate from support that tries to skip a stage. Support for the development of secondary industries in economically undeveloped rural areas is not as effective as providing support to primary industries first. Certainly, because of the need to develop some industries needed to support agriculture and industry and to develop certain important natural resources, some secondary industries must also be operated in economically undeveloped rural areas. However, the secondary industries that are built must be in consonance with the local economy. They should guide the growth of local primary industries, and they should be in keeping with the quality of the local labor force if fairly good economic results are to be derived from them.

At the present time, China's economically developed rural areas have fairly strong capabilities and strengths for their own development. Of greatest importance for these areas is study of how to strengthen macroeconomic management and guidance. Partially developed areas are in a period of transition from having principally primary industries to having primarily secondary industries. A helping hand is needed most at the critical turn of events. Once this stage has been gone through, this sort of regions's capacity to accumulate capital by itself will be greatly enhanced and it will be able to rely entirely on its own resources to advance. In the short term, the funds used to support development of rural secondary industries should be considered for use mostly in this area. These funds may be the largest part of total funds for support of agriculture. Partially developed areas are geographically situated nearer to undeveloped areas than to developed coastal areas, so once they have made a transformation, their role economically in radiating out toward and spurring on undeveloped areas may be somewhat stronger. Investment to support development of rural grain production in eastern China or central China has already or will shown a tendency toward incremental decline in payback. Consequently, consideration should be given to the focus of investment to support development of rural primary industries in a planned and gradual turn toward the western parts of the country. First of all, the focus of investment in the building of commodity grain bases should shift gradually and in a planned way toward the western part of the country. This way of doing things makes more economic sense than transporting grain to the west, no matter whether looked at in terms of the local situation or the overall situation, or in short range or long range terms. Second, greater investment is needed to build western pasturelands and forestry. Third, greater investment is need to build water conservancy projects and chemical fertilizer plants in the west. All parts of the west having the natural resources to support production of chemical fertilizer such as potash salts in Qinghai or phosphate rock in Yunnan and Guizhou should consider building chemical fertilizer plants nearby.

Primary industries are the foundation for secondary industries. If one were to say that the strategic focus in the build-up of China's economy will move westward during the next century, then the westward movement of the key area for investment in agriculture is close at hand.

9432
CSO:4007/228

S&T NEEDED TO DEVELOP AGRICULTURE PRODUCTION

Beijing NONGMIN RIBAO in Chinese 15 Feb 86 p 1

[Article by Lu Liangshu [4151 5328 1859], director of the Agricultural Academia Sinica: "Rely on the Progress of Science and Technology to Develop Agricultural Production"]

[Text] Establishment of a Modern System of Agricultural Technology

During the Seventh 5-Year Plan and under the preconditions that the rural economic system must continue to improve, we must fully realize the potential of science and technology and accelerate reform of agricultural technology in China. Our basic goals are: We should begin to establish a modern high-yield, high-quality, and high-efficiency, low-consumption system of agricultural technology which is adapted to specialization, commodity production, and modernization. We must simultaneously increase production efficiency on both a land and labor basis. Reform of traditional technology and development of advanced technology should proceed in parallel. We must develop knowledge-intensive technology on the basis of labor-intensive technology. We must develop the exploitation and use of agricultural resources, improved processing, and multi-purpose use technology. In order to achieve these goals, we should continue the five combinations in technological matters: Traditional experience with intensive cultivation should be combined with modern science and technology. We must carry out intensive farming. Biological measures should be combined with engineering methods, and the achievements of modern science and technology should be utilized. Technological and economic results should be combined with ecological results in order to establish the proper balance in the agricultural ecological system. Reform of agricultural technology must be governed by the demands of rural combined development in order to establish a multilevel structure in agricultural technology. We should introduce advanced foreign technologies selectively in order to accelerate the conversion of science and technology to productivity.

Diligently Promote, Establish, and Provide Training in Agricultural Technology

In order to meet the demands for agricultural modernization, the most important task in agricultural science and technology is to stress both its promotion and the construction of a service system for establishing technology. In this way, science and technology will be efficiently converted to productivity. More than 400 counties in China have now established "three-combination" centers that provide demonstrations, promotion, and training. We are trying very hard to spread this approach throughout China by 1990. It will be coordinated with stations promoting agricultural technology at the township level, village technicians, science and technology demonstration households, and specialized households. The resulting service network will promote and establish agricultural technology at all levels. Agricultural science and research units should devote certain efforts to conducting combined research and demonstration projects: coordination of state "pilot plans"; strengthening the cultivation industries and postharvest storage and combined utilization of agricultural products; and research and demonstration projects in mountainous and wetland areas. We should begin scientific research centered upon development of township industries and areas producing agricultural commodities, particularly those areas which produce exports. We should encourage large numbers of scientific and technological personnel to deliver "coal in the snow" to rural areas, in other words to actually deliver science and technology to each household and help make poor areas rich.

We should use many different methods and approaches to train all types of agricultural scientific and technological personnel. In this way, we can raise the educational and scientific level of lower level rural cadres and farmers. During the Seventh 5-Year Plan, we must continue to operate well the 70 agricultural colleges and 368 agricultural middle schools. We should also appropriately increase the number of areas of specialization, expand the enrollment, and train specialized personnel of all types and levels. Some of the general rural middle schools should be converted into agricultural middle schools in order to train a new type of farmer having certain agricultural knowledge and production skills. We are striving to provide 2 agricultural technicians for every 10,000 mu of farmland and 1.5 veterinary technicians for every 10,000 animals by 1990. Using the county as the unit, we do all we can to accelerate the training of farming technicians and to ensure that science and technology demonstration households and specialized households fulfill their leadership functions.

Emphasize the Promotion of Existing Results from Science and Technology

During the Seventh 5-Year Plan, we should simultaneously improve production conditions and emphasize the promotion of existing results from science and technology. We should introduce appropriate advanced technology and stimulate an overall, continuous, and stable increase in agricultural production. There are 10 scientific and technological results that can be promoted and applied to large areas: 1) cultivation of crops with high and stable yields together with combined treatment-prevention technology; 2) establishment of a complete, countywide breeding system to provide improved crop, livestock, and poultry varieties--we should consider local conditions in promoting improved varieties and different hybrid combinations; 3) we should use a combination of organic and inorganic fertilizers and promote scientific fertilization techniques that consider both soil and crop types; 4) new technology to coordinate farmland construction with engineering efforts to increase production and conserve irrigation water; 5) technologies to increase production in dryland farming that combine traditional methods with modern science and technology and are applicable to areas with different precipitation; 6) promotion of combined technologies to control livestock and poultry diseases, crop diseases, and damage caused by insects, weeds, and rodents; 7) technology to improve the productivity of low-yielding land; 8) cultivation techniques that involve mulching and plastic coverings; 9) farming techniques that use a combination of energy-efficient, multipurpose medium- and small-sized machinery; 10) diversified preparation and cultivation technology.

13015/9835
CSO: 4007/328

NATIONAL

RESTRUCTURING OF FORESTRY ALONG LINES USED IN FARMING NEEDED

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 12, 23 Dec 85 pp 32-36

[Article by Wang Youchen [3769 1635 5256], Forestry Economic Research Institute, Chinese Forestry Academy: "Preliminary Exploration of the Restructuring of the Rural Forestry Economics System"]

1. New Tasks Faced in the Restructuring of Rural Forestry

Restructuring has scored marked achievements in recent years through the country's all-around practice in rural villages of contract responsibility systems linked to output. Under the impetus provided by the upsurge in the restructuring of agriculture, forestry has also explored numerous restructurings. From the central government to the local level, there has been a further liberalization of forestry policies and the adoption of some necessary measures from which the restructuring of forestry has gained certain benefits. Throughout the country more than 390 million mu of privately worked mountains have been assigned to 56 million peasant households and more than 80 percent of all production teams have spelled out ownership rights for mountain forests, have set up various kinds of forestry production responsibility systems, and households specializing in forestry, priority households and new cooperative economic organizations in forestry have appeared in a steady stream. New changes have begun to take place in forestry conditions. Nevertheless, restructuring of rural forestry has just begun to get underway, and there are numerous strenuous and daunting tasks in reconstruction that await our completion.

Rural forestry is still relatively backward in China today, and considerable problems exist. The decline in forest resources in recent years and the seriousness of ecological problems have become the most prominent of the three major hidden rural perils (overcutting of forests, reduction in the amount of cultivated land, and zooming population growth). The lack of firewood and the small amount of lumber available in rural villages is fairly universal. Responsibilities, rights and benefits in forestry production have yet to be sufficiently unified and peasant enthusiasm for forestry has not yet been aroused to the full. Forestry is overly centralized at every level and throttled by regulations. Forest region counties, communes and production brigades (townships and villages) lack self-determination; forestry science and technology is outmoded; management and administration is haphazard; and productivity is low. The economic structure of forestry is irrational; the utilization rate of resources is low, and economic results are poor. Prices for timber are inequitable; the commodity economy is not well-developed; and forestry planning is devoid of vitality, etc. The crux of the problem lies in "leftist" thinking not having been completely smashed as yet, the still considerable strength of conservative habits, and the irrational economic system in forestry. In the forestry economic system, production relationships are not in keeping with productivity, and various abuses that get in the way of the development of productivity have not been thoroughly eliminated. Consequently, there is urgent need for restructuring. This is the first point.

The second is that as rural restructuring has continued to develop, a substantially large surplus labor force has come about in rural villages. Forestry presents a fine route for the workforce to leave the soil without leaving the countryside and for increasing value received from funds invested. Therefore, increasingly large numbers of peasants pin their hopes on the development of commodity production in forestry, hanker after readjustment, liberalization and stabilization of forestry policies, and await the restructuring of the economic system in forestry.

Third, in order to transform the outmoded situation in forestry, the strategic objectives in development of China's forestry require that by the end of this century the forest cover rate will reach 20 percent; timber output will reach 100 million cubic meters per year, and the output value of forestry will quadruple. Just to achieve the forest cover rate goal alone will require a net increase of 1 billion mu in the forested area, and this is a tremendous project. Attainment of the strategic goals in the development of forestry lies in restructuring. The hope for attainment of these goals reposes in 800 million peasants and the potential reposes in rural forestry. Therefore, acceleration of the restructuring of the rural forestry economy is an inherent requirement for the development of forestry.

2. Lessons of Experience From the Tortuous Development of Rural Forestry

During the past 35 years since founding of the People's Republic, achievements have been scored and progress has been made in the building of rural forestry production. However, one might say as a result of having taken a backward look at the course of events during this period that a very bumpy road has been traveled. Conscientious summarization and acceptance of the lessons of historical experience is of extraordinary importance to our theoretical understanding today of some problems in restructuring the forestry economic system and to courageous exploration and innovation in the practice of restructuring.

(1) On the issue of the system of ownership of rural forestry, as a result of the control exerted for a long period of time by "leftist" thinking that the larger and more public ownership the better, insufficient attention has been given to productivity and the system of ownership has been artificially and unremittingly altered, so-called advanced production relationships instituted, and "thorough transition" adopted. This has resulted in small collectives

being transferred into large collectives and large collectives being transformed into a system of ownership by all the people that has dampened the enthusiasm of hundreds of millions of peasants for the development of forestry production, and has fostered the growth of egalitarianism and blind guidance, has contravened economic claws and the characteristics of forestry itself, and interfered with development of forestry production.

(2) The influence of "leftist" thinking and dogmatism has fettered development of a cooperative economy in rural forestry for a long time. The USSR model was copied for China's state owned forestry, and for the country's rural forestry---particularly collective forestry in the southern part of the country--the methods used in state-owned forest zones were copied. Centralized operations, centralized management, centralized labor, and centralized distribution were instituted. Subsequently, after large scale operation of commune and production brigade forest farms, in particular, these methods became the sole form promoted for a cooperative economy in forestry, and some places adopted arbitrary coercion in instituting them. On the issue of the scale of operations of the cooperative economy in rural forestry, frequently the nature of the system of ownership and the scale of operations were discussed as though they were a single issue and as though the operation under centralized management of a commune and production brigade forest farm by a few score people or several hundred people was socialism. Forestry operations divided up among households organized into teams was regarded as going it alone and capitalist.

(3) The issue of the relationship between the means of production and workers, i.e., the issue of centralization and decentralization of ownership rights and use rights of the means of production, has never been handled well over a long period of time. Formerly the system of management for China rural forestry was "tri-level ownership, production teams being basic." Peasants and mountainland and means of production such as large machines and equipment as well as forests, which are the fruits of labor, were "jointly owned and jointly used." The linking of peasants and the means of production were realized on a society-wide scale. In the prevailing economic life, peasants engaged in forestry did not at all regard public owned mountain forests as being their own, nor did they regard themselves as the masters of mountain forests. Consequently, the peasants did not care about mountain forests and they lacked the enthusiasm need to protect forests and develop forestry.

(4) On the issue of distributions according to work, for many years a system of centralized labor and centralized distributions was used, workpoints being used as standards for judging the quantity of work and the quality of work. Workers had no direct connection with final results; distribution according to work existed in name but not in fact and became a mere formality. The result was "egalitarianism" and "eating out of a large common pot," with low production efficiency and poor economic results that seriously dampened the enthusiasm of workers for production and inhibited development of forestry.

As restructuring of the rural forestry economic system advanced, the foregoing problems have been in process of gradual solution. Following institution of the family contract system in forestry, ownership of the principle means of production such as mountains and the land has reverted to collectives with operating rights being assigned to peasant households in a new form of public ownership of a division of the "two rights." Once the relationship between centralization and decentralization of forest ownership rights and operating rights was correctly handled, peasants and the means of production were directly linked, and it was possible for peasants to see and touch the results of their own work. They genuinely became the masters of mountain forests and their enthusiasm for production experienced an unprecedented upsurge. In addition, as production increased and earnings rose steadily, the peasants used accumulations from their own labors to buy new means of production. Furthermore, in the course of restructuring, numerous forms of cooperative economic organizations appeared. Examples were partnerships for the use of land and other means of production, funds and skills. The general method these partnerships used was to make distributions according to the amount of the means of production invested and in proportion to the number of shares held for the investment of funds and skills, breaking up distributions according to labor. Adoption of this form of distribution brought to the fore to the maximum extent possible all available manpower and material and financial resources to promote expansion of the building of forestry production. This was consistent with objective needs in development of a cooperative economy in forestry, and it has been widely adopted.

3. Thriving Forests, Benefits to the Nation, Bountiful Mountains and Prosperous People Are at the Heart of the Restructuring of Forestry

Restructuring of the rural forestry economic system has as its premise the maintenance of the socialist system in the restructuring of production relationships in forestry and restructuring of a series of interrelated links and places in the superstructure that are not in keeping with development of productivity, plus solution to some problems in the economic system that have hobbled development of productivity. The orientation and guiding thought in restructuring should be the emancipation of thinking, purging of "leftism" and destroying the old, seeking to innovate, and relying fully on hundreds of millions of peasants to plant forests, to nurture forests and to protect forests so that individuals, collectives, and the country all benefit. Once a good job of afforestation has been done, felling and planting should be linked to each other; multiple uses should be made of resources, and there should be a diversity of operations and all around development. Methods of administering and managing commodity production should be used in running forestry, forestry production thereby changing from a closed kind of commodity production to an open kind of commodity production, and building a forestry economic system imbued with vitality and liveliness. Restructuring must adhere to the principle of socialist public ownership of the basic means of production and adhere to the principles of distributions according to work and exchange at equal value; and it must adhere to the principle of suiting general methods to specific circumstances and seeking truth in facts. In the course of restructuring, natural laws and economic laws must be followed for genuine achievement of a combination of protection, development and use of forest resources; and economic, legal and administrative methods must be used to manage forests. A combination of individuals, collectives and the state must operate forestry in common; a combination of long-range, intermediate-range and short-range benefits must be obtained; and there must be a combination of responsibilities, rights and benefits; a combination of forestry, industry and business; and a combination of farming, forestry and animal husbandry. In short, restructuring is to enliven all key production elements in forestry, to emancipate productivity, and to raise the level of forestry production, thereby gaining better economic and ecological benefits, invigorating the economies of mountain regions, improving the livelihood of peasants engaged in forestry and making sure that the green mountains long endure, that they can continue to be used forever, that forests will thrive, that the nation will benefit, that the mountains will be bountiful and the people will prosper. This is the fundamental goal in the restructuring of rural forestry. Restructuring of the rural forestry economic system is part and parcel of the restructuring of the economic system of the whole country. Tasks in this restructuring are also the fundamental tasks involved in the realization of socialism, namely a combination of the development of social productivity, creation of abundant social wealth, and continuous satisfaction of the ever increasing material and cultural needs of the people. Therefore, judgment of the success or failure of restructuring of the rural forestry economic system requires use as the principal criterion an evaluation of benefit to the development of social productivity. This consists of three specific points. The first is to determine whether the initiative and enthusiasm of peasants for the development of forestry has been stirred; the second is to determine whether the level of production in forestry and economic benefits have increased, and third is to determine whether the more forests are cut down the more remain, the more they are cut, the better the wood.

Restructuring of the rural forestry economic system is a complex and daunting task. There is no ready made model to follow in restructuring. How restructuring should be done is still in process of ferment and exploration. In particular, further research is required on the orientation, tasks, methods and steps to be taken in restructuring. Numerous views and ideas have to be tested through practice.

4. Let the Peasants Become the Masters of Mountain Forests

The peasants are the main force in the development of forestry. In mountain regions, in particular, the development of forestry is even more closely related to the peasants. The fundamental experience in the restructuring of agriculture has been a policy of liberalization with institution of family contracting and solution to the interrelated problems of responsibilities, rights, and benefits. As a result, the peasants became masters of the land. Development of forestry also requires restructuring and a policy of liberalization so that the peasants become masters of the mountain forests. Achieving this will require the following:

First is solution to the problem of perceptions. Number one is the need to change the notion that only the state or collectives are fitted for operating forests and correction of the method whereby serious attention is given only to the development of state-owned, commune and production brigade forestlands while ignoring reliance on the peasant masses to develop forestry. Number two is to see the potential that peasants provide for developing forestry. China is a vast land with scant forest resources, and a low forest cover rate in which the task of developing forestry is great and requires both a large workforce and much capital. Sole reliance on the state to solve this problem is not sufficient; the broad masses of peasants have to be relied upon. As a result of the restructuring of agriculture during the past several years, rural villages have a large supply of surplus labor and idle capital that can be used to develop forestry. The potential that the broad masses of peasants hold for development of forestry is very great.

Next is the need for further liberalization of policies. The main reasons for the slow development of forestry for a long period of time have been rather tight control. Peasants have had no self-determination about their own collective mountain forests, nor have they had self-determination in the processing of the forest products produced from the timber. In addition, a policy of unified centralism in distribution and inequitable price policies have been pursued, with the result that peasants have been unable to obtain the compensation that their labor has deserved. The issue of fleecing the peasants has become an extremely prominent one in forestry, some collective forest farms becoming little gold mines for commune and production brigade cadres. The burden that peasants bear from assessments and deductions of one kind or another is very great. In order for peasants truly to become the masters of mountain forests, the influences of "leftist" thinking will have to be swept away and policies further liberalized. For example, some places have adopted policies for the liberalization of mountain forest contracting, expanding the area of privately-worked mountains and responsibility system mountains. Contract periods have been lengthened too. Most mountain forests have been apportioned among peasant households, or the system of privately-worked mountains and responsibility system mountains has seen a "merging of the two kinds of mountains into one kind of mountain which is known by the single name of privately-worked mountains." Partnerships in which partnerships hold shares have also been instituted, the share system being combined with family contracting of operations. Interest bearing loans for afforestation, cooperative afforestation, allowing the transfer of possession of wood from new forests at a price set in terms of money, and allowing the passing on to descendants of forest rights have been instituted. Production tasks involving the felling of timber have been assigned directly to households and final settlements are made with households, thereby reducing intermediate links and insuring direct benefits to producers. Timber markets have been liberalized, making it possible for producers and marketers to meet each other for an enlivening of dealings. Various unfair fee collections have been abolished, with the lion's share of profits on timber jointly marketed going to the peasants. This turning over of profits and delegation of rights has meant real economic benefits for the peasants who work the mountain forests, thereby arousing their enthusiasm for the development of forestry. This has been a miraculous cure for rural forestry.

Finally, China's agriculture has gone through a tortuous process in selecting a form of operation suited to forestry, finally settling on the family contracting system. In recent years, this has also been applied to forestry for rather good results. While maintaining collective ownership of the means of production, rights of use have been placed directly in the hands of the peasants, thereby directly linking producers to the means of production. Not only do the peasants have the right to use and manage the means of production, but compensation for their own labor is linked to production results, and benefits can no longer be egalitarianly and indiscriminately transferred or taken over by others. This has been greatly welcomed by the broad masses of peasants engaged in forestry. Nevertheless, we are aware that restructuring in this regard has only just begun and that there are many places still requiring perfection and improvement. In addition, no matter the form of operations instituted, it is necessary to repose full confidence in the peasants, treating them on the basis of equality and mutual benefit. It is necessary to believe that under a socialist system, once productivity reaches a certain level, family contracting will tend to develop in the direction of combinations and socialization. However, this must come about in an orderly and systematic way; there can be no use of administrative fiat as was done in the past to give impetus to it.

5. Households and Partnerships Specializing in Forestry Are New Forms For the Greening of Barren Mountains and Development of Commodity Production in Forestry

Family operations are the mainstay for households specializing in forestry in a socialist economic form that has as its main goal commodity production. As a result of the further liberalization of policies in recent years, not only has the number of households specializing in forestry increased rapidly, but the scope of their operations has also changed. Out of the households specializing in forestry have emerged a new form in which combinations of households do contracting in forestry. Households specializing in forestry as well as households acting in partnership are required for development of the rural economy, and they are also an inevitable trend in forestry's greater production of commodities, greater specialization and greater socialization.

Households specializing in forestry as well as partnerships of households represent advanced productivity in rural villages. They occupy a specific sphere of operations and are able to readjust in an equitable way the economic structure of forestry and engage in economic diversification. They can make wide use of surplus rural workforces and idle funds; they can change forestry from being a form of production to a form of business that helps develop commodity production, that can use advanced forestry science and technology, that carries out intensive operations and that increases the level of operations. Afforestation done by both households specializing in forestry and partnerships is rapid, of high quality, and produces good results. Practice during only a short period of time has already demonstrated that households specializing in forestry and partnerships hold very great advantages.

In supporting households specializing in forestry and in supporting partnerships today, we have to provide active help in solving difficulties in production such as loans, supply of materials, passing on of information and providing scientific and technical services. They also need help with the planning of production and guidance of their production and business activities so that they sustain few or no economic losses and obtain better economic results. The contract system has to be improved and the legal system has to be strengthened to protect their legitimate rights and interests, to lighten extra burdens on them and get rid of their apprehensions.

Naturally, households specializing in forestry and partnerships are cooperative economic forms in forestry, but there are various other forms of different kinds as well. So long as they help in the development of forestry production, we should not emphasize one form at the expense of another.

Emphasis On Taking a Firm Grip on Restructuring of the Forestry Economic System in Forest Region Counties

Collective forest regions in south China should emphasize firm grip on restructuring of the forestry economic system in forest region counties, efforts being made in three regards as follows:

(1) An unleashing and delegation of authority in forest region counties, for a unification and carrying out of responsibilities, rights and benefits in forestry work.

The system of forestry administration and management in forestry region counties today is substantially one in which vertical leadership predominates, with level by level control at each administrative level. This forestry economic system in which central and local authorities are cut off from each other and there is overlapping not only produces a swollen bureaucracy with numerous levels, more people than there is work to do and low work efficiency, but lateral, internal economic contacts are cut off between producers, between trades, and between places. This system can only improve responsibility for the various quotas set by the state, but it cannot gain corresponding economic benefits. This way of doing things must inevitably greatly dampen the enthusiasm for the development of forestry of basic level leaders and the broad masses of peasants engaged in forestry in forestry region counties.

These shackles that bind the development of forestry must be broken. In order to do this, it is recommended that forest region counties institute an administrative and management method of "four guarantees and one liberalization" that combines responsibilities, rights, and benefits." By this is meant that forest region counties should guarantee completion of plan criteria assigned by the state for timber and major forest products; should guarantee completion of forest replacement and barren mountain afforestation tasks; should guarantee payment of taxes and profits assigned by the state; and should guarantee that the amount of timber felled is no more than the amount of growth to maintain ecological balance. Under these conditions, the state would give forest region counties the following: 1. Delegation of certain personnel rights. Forest region counties would be able to readjust or to establish official organizations as production requirements dictate, to hire technical and managerial personnel concerned, and to readjust and assign staff members and workers. 2. Delegation of certain financial authorities. After payment of profits and taxes, forest region counties would have the right to use earnings to expand reproduction, or use them for staff member and worker welfare, for the issuance of bonuses, or for the institution of variable wages. 3. Delegation of a certain amount of self-determination in administration and management. So long as they fulfilled state production plans, forest region counties could readjust and arrange production plans to reflect actual circumstances. They could simultaneously handle the disposition of products, engage in product cooperation, procurement and marketing at negotiated prices, and set up joint operations that cross sector, industry and regional lines. By so doing there would be external pressures placed on forest production counties to fulfill state quotas. Internally, there would be impetus to develop forestry to gain greater economic results. In addition, forest region counties could put talent to use, could make the most of advantages, and could enliven economic self-determination. Responsibilities, rights and benefits would be closely linked, and within not very long period of time the condition of forest region counties would undergo tremendous change.

(2) Restructuring of the administrative and management structure of forestry in forest region counties.

In most forestry administrative and management organizations in forestry region counties today, there is no separation of government and entrepreneurial functions and administrative fiat is used to manage forestry. For example, forest management and forest labor are separate; felling and procurement are separate; water and land transportation are separate, and production and marketing are separate. Each goes its own way and they bicker with each other. This must be restructured. Government and business have to be in separate organizations in forest region counties. One should be county and township level forestry administrative units primarily responsible for the investigation and study of forestry programs and policies and for seeing that work is carried out. They would be responsible for the obligatory planting of trees for afforestation as well as for the care and protection and the financial work involved in special forests and shelter forests; and they would organize forestry scientific research and dissemination work. Second should be county and township integrated forestry, industry and commercial companies and, as circumstances require, separate specialized companies could be established at the primary county level for the management of forests, timber, forest products, transportation and capital construction. These companies could use economic methods and techniques such as the signing of contracts with townships and villages (communes and production brigades) and with specialized households and partnerships to carry out loose economic alliances. The companies could also guide them in carrying out forestry production. At the same time, county and township primary level companies should carry out open dealings with others. They should welcome investment of money or intellect in forest areas by commune members and people from elsewhere, or joint operations of all aspects of forestry production, splitting the profits.

(3) Carrying out of special economic policies and fostering development of forestry in forest region counties

Substantial readjustment of forestry policies is urgently needed for the building and perfection of contract responsibility systems linked to output in forestry. One such readjustment is to broaden the scope of family contracting from barren mountains and scrub forests to man made forests and natural forests. Second, contracting in forestry should be done for long periods without change. In general, contracts should cover a production cycle. Third, no matter the form of operations adopted, they should be predicated on helping to protect forests and to develop forestry. General methods should be suited to specific circumstances, the desires of the masses should be fully respected, and diverse forms of operation should be encouraged. For collectively owned mature timber forests, collectively operated forest farms may be centrally administered. Alternatively share partnerships may be entered into or forest trees may be contracted to households for management at a converted monetary value. Energetic efforts should be made to nurture households and partnerships specializing in forestry. Forest region counties and provinces, counties and sectors as well as foreign partnerships should be permitted to develop forestry.

2. Development of forest region commodity production and enlivening of the flow of timber. Development of forestry commodity production requires the demolition of certain forbidden zones. First, a rise in timber prices should be permitted. Three different prices may be instituted for timber, namely a centralized procurement price, a premium price and a negotiated price (including a marketing guide price and a procurement protection price) whereby forestry operations not only preserve their capital but also make a profit. Second is the need to permit the transfer of possession of forest trees at a monetary value. Third is the need to adhere to the principle of taking the planned economy as the key link, market regulation being supplementary in the planned and guided opening up of timber markets in forest region counties. Marketing and forestry administration work has to be improved.

3. Channels for funds for forestry must be developed widely. First, insofar as its financial resources permit, the state should increase investment in forestry. After the state cancels centralized timber procurement quotas, there should be no reduction of investment in capital construction for forestry. Existing plan investment channels can be maintained, and assigned timber and investment in some capital construction may be linked. Second is institution of special accounting methods for forestry allowing reductions or exemptions from the collection of forestry taxes and profits and a reduction in withholdings of profits and taxes for use in the development of forestry. Third is a change in the past method of providing assistance without compensation for the growing of seedlings and for afforestation, using loans instead. The state must ear mark more loan funds for forestry, making them a part of forestry funds for centralized management and use. In order to improve results from the use of forestry funds and raise management levels, it is recommended that the state set up a Bank of Forestry responsible for managing forestry funds and for issuing negotiable forestry securities. Fourth is importation of funds in joint afforestation projects, attracting foreign capital and overseas capital as well as domestic industries concerned and individual households to invest in forestry.

7. Several Suggestions About Good Performance in Restructuring the Rural Forestry Economic System

Restructuring of China's rural forestry economic system is being carried out widely and deeply. In order to insure that this restructuring will proceed smoothly and score fairly good results, the following several suggestions have been especially made: First, it is necessary to bolster Party leadership at every level, and increase appreciation of the importance of restructuring of the rural forestry economic system. In the course of restructuring, it will be necessary to overcome thinking that follows the beaten path and traditional concepts and to give full and enthusiastic support to new things. It will be necessary both to emancipate thinking and explore courageously and to seek truth in facts and act with prudence and safety. Second is diligent attention to pilot projects for reform of the rural forestry economic system. Pilot projects should be used to study the new situations, new experiences and new problems that arise in the course of restructuring and to explore direction, plot one's course, spread out from single points to whole areas, and give impetus to all around development of restructuring of the rural forestry economic system. Places having requisite conditions might try running special forestry zones. In addition, there should be a regular exchange of experiences about restructuring of the rural forestry economic system. Third, major problems existing in the present restructuring of the rural forestry economic system should be addressed, study of special topics to surmount them undertaken, and plans and recommendations for restructuring put forward.

9432
CSO:4007/231

NATIONAL

SCOPE OF FORESTRY RESPONSIBILITY SYSTEM EXPANDED

Beijing NONGMIN RIBAO in Chinese 4 Jan 86 p 1

[Article by Minister of Forestry, Yang Zhong [2799 6988]: "Perfect Further the Forestry Production Responsibility System"]

[Text] In recent years, the situation in forestry has become better with each passing year. Under impetus from the spirit of Central Committee document number 1 in 1985, there has been a continuing liberalization of policies, pervasive reforms and new development and progress. During the new year, the general line for forestry is to be a summarization of experiences, perseverance in reforms and efforts to change the existing state of affairs in forestry.

The contract responsibility systems linked to output instituted in farming in recent years are likewise applicable to forestry. A melding of the responsibilities, rights and interests of those engaged in forestry in accordance with the characteristics of forestry is crucial in giving impetus to the development of forestry. This work, taken together with the designation of mountains to be worked privately and the formulation of rights to mountains and rights to forests, has scored very great achievements. Nevertheless, very many problems remain. There are some complex problems that cannot be accurately assessed over the short term and that require exploration and the test of practice. There are three main problems in this regard that require solution as follows:

(1) How should collective tracts of commercial forests be operated? Central Committee document number 3 of 1984 pointed out that these "may be contracted for operation by specialized teams (or units), a new cooperative economy may be run of joint operations by shareholders, or families may contract operations." General methods must be suited to specific places and specific forests, the masses themselves making the choices. In the operation of large tract collective forests, Liujia Village in Luonan County, Shaanxi Province discovered a shareholder joint operation method. After looking at data on this method, leading comrades in the Central Committee made some written comments of agreement plus some notes. Subsequently, this was tried out with rather good results in Fujian Province and in some other provinces. Large tract, collective forest, joint shareholder operations is a new style cooperative economy that has vitality, and it is a method for self-transformation and

self-perfection of collective forest operating methods. The carrying out of centralized operations, shares being held by households (or individuals), households providing labor according to the number of shares they hold and receiving income according to the number of shares they hold with the right of succession and the right of transfer, decrease or increase share holdings being permitted, shares being divided up with no division of mountain forests and returns being divided up with no dividing up of forests pretty well solves contradictions among responsibilities, rights and benefits and also brings together new elements to expand operations. Certainly there are still other good methods. Each jurisdiction should make a conscientious summary and pick the best method to follow, thereby perfecting the method of operating large tract collective forests.

Subject to approval from authorities in charge, barren mountains and mountain forests that state-owned forest farms are unable to handle may be contracted to staff members and workers and to local peasants for handling. Alternatively, a portion of them may be designated for joint operations with the masses in surrounding areas with a division of earnings. In the case of problems inherited from history, in principle either a division of benefits with no division of forests or joint operations should be adopted with concurrent concern being shown to the interests of local areas and the masses. Support and guidance should be given the masses in making rational use of mountain region resources in order to cure poverty and become prosperous.

(3) Guidance should be given households specializing in forestry and to partnerships for their steady development. Households specializing in forestry and partnerships are the principal forces in rural areas for development of forestry. They are currently at an initial stage; they lack experience; they face considerable difficulties; and they need active policy and operational guidance as well as needed support in information, the growing of seedlings, techniques, funds and the circulation of goods. The scale of their operations has to be in terms of their own capabilities and with attention to results obtained. Operations should not be overly large; mostly different jobs should be done concurrently with little specialization of jobs being done, strengths and weaknesses being evened out. Jobs that really cannot be handled alone should be handled jointly, share participation expanded or turned over to others. Help should be given in setting up specialized societies and in setting up specialized service organizations. Legitimate rights and interest should be protected, and both assessments and egalitarianism and indiscriminate transfer of resources are strictly forbidden. They should be encouraged to be self-reliant, to achieve wealth through their own labor, and to follow a socialist orientation for steady development.

9432
CSO:4007/224

SHORTFALLS IN TIMBER FOR AGRICULTURE EXPECTED

Beijing NONGMIN BAO in Chinese 2 Jan 86 p 2

[Article "Outlook Is For Continued Lumber Shortage in 1986"]

[Text] The Ministry of Agriculture, Animal Husbandry and Fishery lumber requirement plan proposals for 1986 shows that there will continue to be a glaring conflict between supply and demand. Lumber requirement plans for 1986 reported by directly supplied units in agriculture, state farm and land reclamation and aquatic products industries under departments and bureaus concerned in the ministry are higher than in 1985. Requirements for farming are 43,878 cubic meters; for state farm and land reclamation, 792,644 cubic meters; and for aquatic products, 168,265 cubic meters, these requested amounts being respectively 126, 108 and 105 percent higher than 1985 plan.

Reasons accounting for the rise in demand for lumber are as follows: First has been the needs in development of agricultural production and corresponding expansion in the size of agricultural science and technology and educational units, improvement of conditions, and increases in the construction area. Second has been a substantial number of new production and capital construction projects. Third has been the fairly rapid expansion of the aquatic products breeding industry in recent years and the rapid increase in the numbers of motorized fishing boats requiring nearly 3,000 cubic meters of lumber.

The 1986 principle used for distribution of primary materials is maintenance of a level lower than that of 1985. For this reason, the shortage situation in the supply of lumber throughout the agriculture, animal husbandry and fishing industry system will continue.

9432
CSO: 4007/224

INCREASED REVENUES DERIVED FROM TOBACCO SALES

Hefei ANHUI RIBAO in Chinese 25 Dec 85 p 1

[Article by Correspondent Ma Biling [7456 3880 3781]: "Fine Achievements Scored in Monopoly Sale of Tobacco in Anhui Province. More Than 800 Million Yuan in Taxes and Profits Collected in 1985, Making Tobacco One of the Mainstays of the Province's Finances"]

[Text] The correspondent learned at the work conference convened by the provincial tobacco monopoly bureau that economic benefits have steadily risen since implementation of monopoly dealings in tobacco in the province, making an ever increasing contribution to the state. In 1984, taxes and profits amounted to more than 700 million, and in 1985 profits and taxes increased to more than 800 million yuan, making this a mainstay of the province's finances.

Anhui Province first put into effect monopoly dealings in tobacco in 1983. During the past 2 years, the provincial monopoly bureau has carried out "Regulations Pertaining to the Tobacco Monopoly," has conscientiously reorganized tobacco marketing channels, has intensified market control of tobacco and has actively launched a laterally linked and varied production and business campaign to place tobacco industry production and dealings on a scientific track. During 1985, in particular, the provincial tobacco monopoly bureau has taken effective actions to stamp out handmade cigarettes and counterfeit brands of cigarettes to protect the states economic interests. In 1985, they also took note of the province's cigarette production being greater than its sales to launch lateral relationships with Beijing, Shanghai, Tianjin, Jiangsu, Zhejiang, Nei Monggol, Sichuan, Shanxi and Gansu to process cigarettes for them. As a result, full use was made of enterprises' production potential and their production became more flourishing with each passing day. After implementation of the tobacco monopoly, every enterprise in the province made new efforts at technical transformation and replacement of equipment, thereby greatly bolstering the quality of enterprises' production and production capacity gradually rose. In 1985, the province's output value of cigarettes vaulted into third place in the country, and output stood in fifth place. Cigarette quality also improved tremendously, with medium and high quality cigarettes accounting for 64 percent of the total cigarette output. Not only does this satisfy market needs, but it also increases economic results. As a result of jurisdictions at all levels having adopted flexible measures for joint operations and joint marketing, in 1985 the province sold a total of 1.68 million cases of cigarettes and exported 1,000 tons of cigarettes for an all-time high.

9432
CSO:4007/224

BEIJING

BRIEFS

AQUATIC PRODUCTS DOWN IN BEIJING--Since controls on the prices of major secondary foods were removed last year, the sale of aquatic products in the markets of Beijing has dropped significantly A survey of municipal aquatic products sales companies showed that sales between May and November of last year were 26.31 million jin compared to the 64.43 million jin during the same period of the previous year. This is a decrease of 59.2 percent. The main reason for this sales decrease is the removal of all state price subsidies for aquatic products after controls on prices were lifted. Price increases were, therefore, too great. Compared to the prices for other secondary foods, prices for aquatic products were higher and difficult for people to accept. The average wholesale price for all types of fish products was 0.58 yuan per jin before price controls were removed. After controls were lifted, the average price increased to 1.35 yuan per jin, an increase of 1.33-fold. Price increases for some popular varieties were even greater. For example, the retail price of cutlass fish (larger than 6 liang) increased from 0.6 to 2.2 yuan per jin, an increase of 2.33-fold; the retail price of yellow fish (larger than 0.5 jin) increased from 0.69 yuan to 3.4 yuan per jin, an almost 4-fold increase. Among other secondary foods, the price increase for eggs was only 16.6 percent and that for pork was only 35.4 percent. Changes in the relationship between prices for aquatic products and other secondary foods have caused shifts in people's buying habits. [Text] [Beijing NONGMIN RIBAO in Chinese 18 Jan 86 p 2] 13015/7051

CSO: 4007/264

FUJIAN

BRIEFS

SUGAR OUTPUT--As of 10 April, the province had pressed more than 4,580,000 tons of sugarcane and produced more than 510,000 tons of sugar, completing 109 percent and 107 percent respectively of the plan for the entire pressing season. It is estimated that sugar output will be 520,000 tons, an increase of 12.7 percent over the last pressing seasons's output of 460,000 tons. [Excerpt] [Fuzhou FUJIAN RIBAO in Chinese 28 Apr 86 p 1]

CSO: 4007/422

HEBEI

NEW CREDIT POLICIES REPORTED BY AGRICULTURAL BANK

Shijiazhuang HEBEI RIBAO in Chinese 1 Apr 86 p 2

[Article by Li Ruicha [2621 3843 5420]: "Hebei Agricultural Bank Advances New Credit Policies That Are Practical and Realistic and Feature Flexible Control, Reasonable Loans, and Support for Production"]

[Text] Recently, in view of the growth of rural commodity production in Hebei, the provincial agricultural bank has advanced new credit policies and increased loan flexibility.

These new credit policies are as follows:

1. The number of directive quotas will be reduced and the scope of guided planning will be expanded. In 1986 directive planning quotas will be reduced to three in number: loan volume, technical renovation loans, and township enterprise equipment loans.

2. A policy will be implemented allowing extra credit for extra savings. Any increase in the total quantity of deposits over and above the portion calculated in the annual plan may be used in the same year for circulating credit funds extraneous to directive quotas. The "extra credit" funds can be used first to increase agricultural credit and township enterprise circulating loan funds.

3. Based on different economic conditions in different areas, appropriate reductions will be made in the proportion of credit cooperative savings reserves.

4. Each case will be decided on its merits. Fixed asset investment credit will be strictly controlled based on approval of plans, and the supply of circulating funds will be made suitably flexible. Appropriate allowances will be made for impoverished regions and economically beneficial projects will be given priority support.

5. We must successfully handle funding for short-term loans. The various banks and financial institutions can scrutinize lending among themselves. Credit cooperatives will be permitted to utilize deposits over and above ample credit reserves at their own discretion. No provisions may be made for

directive transfers of savings responsibilities. Credit cooperatives that have a surplus or defecit of funds may make adjustments among themselves.

6. We must vigorously organize savings, enlarge deposits, and unearth more financial resources. We must increase the variety of savings deposits. At the same time as we handle existing kinds of savings, we must also work to initiate interest-bearing and bonus-paying accounts. We must also move step by step to try out accounts for durable consumer goods, house building accounts, savings for only sons or daughters, combinations of savings and loans, and both time deposits and active accounts.

7. We must support agricultural production. In 1986 rural credit investments should better reflect the policy of "active development of the diversified economy without any relaxation of grain production." We must give precedence to guaranteeing funds necessary for grain production, while suitably improving the proportion of credit for forestry, animal husbandry, and fishery. Credit cooperative funds must first meet the needs of agricultural production, and we should grant timely loans for production materials such as seed, fertilizer, pesticides, and medium and small farm implements. Simultaneously, we must support the adoption of advanced science and technology, improve production conditions, and achieve quality and diversity in agricultural produce.

8. We must work vigorously to support development and utilization of "mountains, oceans, and embankments." Over 50 percent of the farm credit funding in Hebei's provincial plan supports economic development in "mountain, ocean, and embankment" regions. The stress is on support for peasant households and joint households in developing cultivation, breeding, livestock, and mining industries, as well as processing industries for farm and sideline products.

9. We will actively support healthy growth in township enterprises. Based on central guiding policy to "offer enthusiastic support, plan prudently, give proper guidance, and enhance management," we must discriminate between different localities, projects, conditions, and uses, and arrive at controlled support. The focal points of support are on processing farm and sideline goods and on building materials, mining, transportation, and other preproduction and postproduction services. Among these, priority support will go to well-known, high-quality, special, and new products, as well as to exports that bring in a high rate of foreign exchange. We should suitably relax restrictions on circulating funds and tighten up loans for production equipment.

10. We must give active support to impoverished regions developing commodity production. In agricultural credit, one of the top priorities in banks and credit cooperatives at all levels should be to help impoverished regions cast off poverty and enrich themselves. In impoverished regions the proportion of deposit reserves in credit cooperatives may be lowered to 10 percent. In poor areas the proportion of self-supplied funds rural households need for production-expense loans may decreased: for over 1,000 yuan of credit the proportion may be lowered to 30 percent, for 500 to 1,000 yuan it may be decreased to 20 percent, and for less than 500 yuan it may no longer be emphasized. Realistic time limits should be placed on development loans in

impoverished areas, and they may be extended as appropriate based on the production cycle and the overall repayment capacity. Hebei will set aside 14 million yuan from its credit plan for specific loans to aid the poor, and it will also extract 10 million yuan from previous, recalled loans to increase support funding for credit cooperatives in poor areas.

11. We must enhance rural industrial and commercial credit. Based on contracts and market demand, each industry must organize production and procurement of grain, cotton, oil-bearing crops, and other large quantities of agricultural and sideline produce, and actively supply funds to the commercial sector, guaranteeing the fulfilment of procurement contracts. We must assure supplies of day-to-day necessities and production materials in accordance with the farming season, and we must give active support to agricultural, industrial, and commercial associations that cut across regions and industries.

12510
CSO:4007/367

MANAGEMENT OF WATER RESOURCES MANDATED

Regulations Published

Shijiazhuang HEBEI RIBAO in Chinese 27 Dec 85 p 2

[Article: "Regulations on Management of Water Resources in Hebei Province, Approved by the Seventh Meeting of the Standing Committee of the Sixth Hebei Provincial National People's Congress on 21 December 1985"]

First Chapter. General Rules

Article 1. In order to develop for use and centrally manage the whole province's water resources and meet requirements for development of the national economy and the people's livelihood, these regulations have been formulated in accordance with the provisions of the constitution of the People's Republic of China and related laws in view of the shortage of water resources in the province, the serious waste of water, and the ever increasing needs of industry and agriculture for water.

Article 2. Natural water resources throughout the province are owned by the state, and state ownership of them may not be changed as a result of alterations in the ownership of land or water projects or of utilization rights.

Article 3. In the management of water resources, the principles of centralized planning, rational exploitation, scientific use, conservation in the use of water and prevention and control of pollution must be followed for optimum socio-economic benefits and ecological benefits.

Article 4. This article applies to the development, use, control and protection of water resources throughout the province, except in cases where national regulations apply.

Chapter 2. Development of Water Resources For Use

Article 5. All units that supply water must institute the principle of planned water supply. All units and individuals that use water must use water scientifically and conserve on the use of water.

Article 6. People's governments at all levels are to encourage, support and promote advance technical measures for the scientific use of water and conservation in the use of water.

Article 7. National procedures and related regulations on capital construction must be followed in the building of large and medium size projects for the use of water resources. Only after projects have been completed and examined for acceptance by the authorities concerned may they be put to use.

Article 8. Units and individuals that build small projects for the use of water resources must make application to municipal or county people's governments or their designated representatives and obtain a permit following approval before beginning construction. They must also bear responsibility for the management and protection of the water resources concerned.

Article 9. Depending on their function and size, projects built to make use of water resources may be operated by the state, collectives or individuals or operated jointly.

Article 10. All projects and facilities for the use of water resources are to be protected, and no unit or individual may destroy or damage them.

All activities that imperil the normal operation of projects for the use of water resources are forbidden.

Article 11. Fees for water resources must be paid to local authorities in accordance with regulations for water resources that have been developed for use. (For the time being no fees for water resources are collected from peasants who tap ground water for the irrigation of farmland.) These funds are to be dedicated for use in helping with the development, use, management and conservation of water resources and may not be diverted to other uses.

Article 12. Standards and methods for the collection of water resources fees are to be formulated in accordance with national economic policies and the status of water resources by provincial departments in charge of water resources and reported to the provincial people's government for approval and implementation.

Article 13. All departments in charge of water resources at all levels are empowered to conduct inspections of the amount of water used by all customers as specific circumstances require.

Chapter 3. Cities Management of and Collection of Fees For Water Usage

Article 14. The principles to be applied by cities in the distribution of water for use are as follows: Priority is to be given for the use of superior quality water in the people's daily lives. When there is a shortage of water, water for use in the people's daily life and water for the use of medical units, for vegetable production and for key industrial production is to be guaranteed first.

Article 15. Urban plans should include strict control over the amount of development of ground water, further boring of new wells generally not being permitted in areas where too much water is already being extracted. Existing pump wells are to complete registration procedures in accordance with regulations.

Article 16. Urban plans should provide that no unit may develop water resources for their own use without prior approval. All existing water resources for the sole use of units are gradually to be made a part of the overall urban water supply system.

Article 17. Departments in charge of urban water resources are to formulate equitable unit consumption quotas for industrial and mining enterprises and for operating units that use water (including units having their own water sources), and they are to establish a unit inspection system for the use of water. Industrial and mining enterprise should improve their water recycling rate, using the same water many times, cycling water used in production and recovering waste water for use.

Article 18. Fees are to be collected for water used within plan in accordance with national regulations, and an award price rate is to be applied for consumption of water below the quota allowed. A surcharge is to be made for that portion of water used in excess of quota. All fees paid for water in excess of quota and all water resources fees are to be paid from after-tax profits and are not to be applied to costs.

Article 19. A fixed amount of water is to be supplied for use in the daily life of city residents and a system of metering instituted for the collection of fees. A surcharge is to be collected for that portion in excess of the quota. Storeyed buildings and single storey dwellings having requisite conditions are to install water meters for individual households.

Chapter 4. Management of Rural Water Usage and Collection of Fees

Article 20. Development of ground water must be done in accordance with the availability of ground water and surface water resources, and following the principles of suiting general methods to specific circumstances, a rational pattern, use of deep, medium and shallow sources in combination, water in shallow strata being developed first. County authorities in overall charge of water resources are to make overall plans and decide the locations of wells. In areas where too much water is already being extracted, generally no further boring of pump wells is to be allowed.

Article 21. State and collective project facilities for the use of water resources will require a management organization or designated (concurrent) managerial personnel commensurate with the size of the facilities, and they are to exercise central control. Different forms of management responsibility systems are to be established with regular inspections and the issuance of rewards and punishments.

When pump wells are to be abandoned, a report is to be prepared for the overall control authority for county water resources.

Article 22. Water is to be supplied to irrigation ditches at so much per mu, a quota of water supplied and fees collected on the basis of metering.

The quota of water to be used by various kinds of crops is to be fixed by the overall authority in charge of county water resources in accordance with a province-wide plan.

Article 23. Municipal and county overall authorities for water resources are to fix the amount of water that agricultural pump wells may use for the irrigation of farmland, a quota of water to be supplied gradually being effected.

Centrally controlled pump wells used in agriculture are to institute the collection of fees for water lifting costs based on the measurement of water volume pumped or the period of time.

Article 24. Places having inadequate water resources should readjust in a planned way their agricultural crop patterns, growing, insofar as possible, high yield crops that require little water or that tolerate drought.

Chapter 5. Protection of Water Resources

Article 25. It is the duty of all units and individuals that use water to protect water resources.

Article 26. Municipal and county units in charge of water resources are to take action, insofar as safety and health conditions permit, to use water held in ponds, ditches, rivers and low-lying spots to augment water resources.

Article 27. Prior evaluation must be made of the effect on water resources of all new construction, expansions, or improvement projects and other facilities that may affect water resources, construction being permitted only following approval by water resources and environmental protection authorities.

Article 28. Local people's governments are to designate various degrees of water resources protection areas around water resources projects in accordance with requirements of project safety and protection of water quality. No unit or person may encroach upon or destroy such areas.

Article 29. Waste water and sewage that exceeds standards may not be discharged at will. Effective actions must be taken on water resources that have already been polluted and damaged to clean them up within a stipulated period of time to bring them to good condition. All expenses incurred are to be borne by units or individuals who caused the trouble.

In cases where contamination is serious and industrial and mining enterprises are unable to correct it within a short period of time, the enterprises are to be closed, suspended, converted or moved on a case-by-case basis.

Article 30. Water conservancy, geological and environmental protection departments are to follow the principle of a division of labor, each sharing responsibilities according to their specialties to establish, as suitable, hydrological and water quality monitoring stations and networks and an observation network to observe the status of ground water, carrying out monitoring of water quality and water quantity in a planned way.

All water quality monitoring stations are to trace sources of pollution and inspect the situation with regard to the discharge of pollutants and pollution damage. Units and individual concerned must provide information and data, without any attempt to conceal or report falsely.

Article 31. Bodies of water in which harmful elements exceed nationally prescribed standards and endanger the health of the people may not be tapped for use as drinking water. Those already in use must be cleaned up and not used as sources of drinking water pending attainment of nationally set standards.

Chapter 6. Managerial Bodies and Their Duties

Article 32. People's governments at all levels are to regulate water in accordance with law. They are to exercise centralized management over water resources, discharge responsibilities at all levels, acting in accordance with the principle of a combination of overall control and a division of labor among departments.

Article 33. People's governments at all levels should take action to solve major problems arising in water resources work. They should turn in a good performance in the rational exploitation and scientific use of water resources under centralized plans and management from higher authority.

Article 34. Water conservancy administrative departments at all levels are the overall management authority for water resources. They are responsible for overall planning for and management of the all-around development, use, allocation and protection of water resources.

Article 35. City and small town construction and environmental protection units at all levels are the management authority for urban water resources. They are responsible, under the centralized planning and management of overall water resources management authorities, for management of urban water resources and for the prevention and control of the pollution of water sources throughout the province.

Article 36. All authorities concerned are to subordinate themselves to the centralized management of water resources for the province as a whole and to provide to departments responsible for overall management of water resources all pertinent information and data about water resources. Overall water resources management authorities must promptly prepare forecasts and guidance for the use of authorities concerned.

Chapter 7. Awards and Penalties

Article 37. Units and individuals who have done the following meritorious deeds are to be rewarded:

(1) Marked achievements in the protection and equitable use of water resources;

(2) Marked achievements in the scientific use and conservation of water;

(3) Major innovations and inventions in the course of work on projects for the exploitation of water resources;

(4) Major contributions in support of this regulation and in fighting against violations of it.

Article 38. Those who commit any of the acts hereinafter enumerated in violation of this regulation are not only to take remedial action within a stipulated period of time, but are also, depending on the seriousness of the situation as regarded by authorities concerned, to be ordered to make reimbursement of damages or be subjected to fines. Criminal violations are to be tried by legal institutions in accordance with law.

(1) Violations of conditions set in permits and unauthorized actions to change the purposes for which water is to be used;

(2) Inept management causing serious waste of water resources;

(3) Failure to follow regulations in the installation of water measuring facilities and in the payment of water resources fees and water fees;

(4) Exploiting and using water resources at will without having obtained permission to do so;

(5) Serious pollution of water resources and contamination of the environment;

(6) Transgressions of the use rights approved for others and destruction of designated protection areas leading to serious consequences;

(7) Damage to project facilities for the use of water resources;

(8) Other conduct in violation of this regulation that creates serious consequences.

Article 39. Water resources management authorities at all levels must strictly carry out national laws, regulations, programs and policies; handle matters impartially; and not act wrongly out of personal considerations. Violators are to be dealt with strictly depending on the seriousness of their infractions.

Chapter 8. Supplementary Regulations

Article 40. The meanings of terms used in this regulation are provided as follows:

(1) "Water resources" means ground water and surface water (including springs);

(2) "Pump wells" means wells that use powered water-lifting machines;

(3) "County" means county or autonomous county;

Article 41. Provincial water resources management authorities may formulate specific regulations for implementation based on this regulation, reporting them to provincial people's government for approval for implementation.

Article 42. This regulation is effective from the date of publication.

Commentary on Regulations

Shijiazhuang HEBEI RIBAO in Chinese 27 Dec 85 p 2

[Commentary: "Application of Legal Methods For Good Management of Water Resources"]

[Text] "Regulations on Management of Water Resources in Hebei Province" has already been passed by the 17th session of the the Standing Committee of the Sixth Hebei Provincial National People's Congress and has been promulgated for implementation. This is a major legal weapon for the province's management of water resources. The promulgation of this "regulation" for implementation will play a very great role for good performance in the rational exploitation and scientific use of water resources in the province.

A look at the current situation in the province's water resources shows a serious shortage of water resources and the taking of too much ground water each year, causing a drop in the water table as well as a halt in the flow of streams and an ever widening conflict between supply and demand for water. It also shows serious waste of water resources everywhere, and increasingly serious industrial pollution of water resources. This state of affairs is very much related to the lack of uniform regulations for the management of water and the existence of an anarchic situation in which everyone is a law unto himself in the exploitation of water resources for use. In order to bring about a gradual solution to the conflict between supply and demand of water resources in the province, the state has decided on a project for the northward diversion of waters from the south. However, this is a strategic goal that will not show results in the province in the near term. Consequently, we must work with resources that are available within the province, develop resources and reduce consumption, and take the road of planned use of water and conservation in the use of water.

The water resources issue is one that bears on the situation as a whole. People's governments at all levels must strengthen leadership and take timely action to find a solution to major problems in water resources work. Water conservancy departments at all levels must do a good job in the overall exploitation, use, management and protection of water resources. City and small town construction and environmental protection authorities at all levels must do a good job of managing urban water resources, and do a good job of prevention and control of the pollution of water resources. All units at all levels and the broad masses of people must support and subordinate themselves to centralized management of water resources, opposing individual units and people being a law unto themselves. Hebei Province is currently in process of drawing up the Seventh 5-Year Plan for national economic and social development. The exploitation, use and management of water resources must be regarded as a major component of the plan. All jurisdictions must do across-the-board planning for water resources under their control, consider matters carefully, and attain the goal of rational exploitation and scientific use, and conscientious protection.

"Regulations For the Management of Water Resources in Hebei Province" is an important tool for "control of water in accordance with law" for people's governments at all levels throughout the province. All departments at all levels should study it carefully, genuinely carry it out, and use all effective methods to give it widespread publicity so that it becomes known in every household, the broad masses of people thereby coming to understand the important position, role and significance of water resources in the socialist modernization of the province, understand the basic content of the "Regulations" and consciously act in accordance with law.

9432
CSO:4007/220

STABLE INCREASES IN GRAIN EMPHASIZED

Beijing JINGJI RIBAO in Chinese 16 Jan 86 p 2

[Article by reporter Tian Jijin (3944 4480 6855): "Rural Industries in Hubei Have Undergone Coordinated Development--Stabilization of Grain Production, Control of Cotton Production, Development of Diversification, and Breakthroughs in Animal Husbandry"]

[Text] [Editor's note] Agriculture provides the basis for the state economy, and grain production is the foundation of agriculture. When they direct farmers to reform the internal structure of agriculture, all levels of the agriculture, animal husbandry, fisheries department must implement the directive to "Never neglect grain production and enthusiastically develop diversification" so that increased grain production will be ensured.

Stable increases in grain production require adequate planting areas. We must consider grain transportation and local financial conditions when reducing land under cultivation or increasing land for forestry, animal husbandry, fisheries, and cash crops. Achieving stable increases in grain production will require vigorous utilization of new technology and increases in yield. Examples include promoting the use of improved varieties and the development of ground covers. In summary, reduction of grain-planting areas requires adequate consideration in light of local conditions. [End editor's note]

Reform of rural enterprise structure in Hubei has stabilized grain and cash crops have undergone coordinate development, and the commodity economy has been more active than ever before.

From 1979 to 1984, grain and cotton production in Hubei developed rapidly. Yearly production now exceeds 40 billion jin and 10 million dan respectively, and there are relative surpluses. Cash-crop development, however, has not been adequate, and animal husbandry is "stunted." In order to stimulate overall, coordinated development of agriculture, the entire province must seize this opportunity, reduce the grain-planting area, and develop cash crops. Hubei Province has conscientiously conducted investigations in order to reduce the grain-planting area adequately and avoid blind actions. Based upon the 1984 average yield of 570 jin per mu, the originally planned reduction of 5 million mu would have produced a decrease of 2.85 billion jin in Hubei grain production. Simultaneous conversion from common to preferred grain types and from poor-quality to good-quality rice resulted in a total production decrease of 3 billion jin. On the other hand, development of the livestock industry requires an additional 2 billion jin of feed grain. Can the province support a reduction of 5 billion jin in grain production? The provincial CCP committee and provincial government analyzed the grain situation and concluded that production must be maintained because grain is the foundation of agriculture. Therefore, any reduction must be appropriate. They decided to reduce planting area by only one-half, or 2.5 million mu. In order to maintain grain production, the following measures were suggested: promoting the use of hybrid rice varieties to increase unit production; establishment of a commodity grain base; increased emphasis on corn varieties adapted to high elevations and grain production in poor, mountainous areas; and vigorous promotion of new technologies that will increase agricultural production.

Because both the reduction in planting area and measures to increase production were apropriate, the goal of "Stabilizing grain, controlling cotton, development of diversification, and a breakthrough in the livestock industry" was achieved in 1 year. All rural sectors have begun to coordinate development.

--Although total grain production was slightly lower than in the bumper harvest year of 1984, it was still the second highest production year since the liberation. Cotton production was 9.6 million dan and met the established goal.

--Total oil production was 13.8 million dan, the highest level in history.

--Hemp production increased greatly, total production being 5.74 million dan, double that of 1984.

--Fruit production increased 15 percent; tea production, 10 percent, tobacco production, 30 percent; and vegetable production, more than 30 percent.

--The livestock industry developed rapidly. Fourteen million pigs were slaughtered, an increase of 2 million compared to last year. Poultry production was 130 million, an increase of 30 million. Total egg production reached 850 billion jin, an increase of 200 million jin. The total value of livestock industry production was 2.8 billion yuan, an increase of 500 million yuan. Hubei finally discarded its reputation as a long-term meat importer.

Development of diversification has begun to change the uniformity of the rural economy. The ratio of grain to cash-crop production has changed from 85:15 in 1978 to 79:21. The commodity rate of all rural sectors has increased from 52 percent last year to 60 percent. Farmers' per capita income has reached 420 yuan, an increase of 20 yuan over last year.

13015/7051
CSO: 4007/264

PROBLEMS IN GRAIN, CASH CROP MIX DISCUSSED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 3, Mar 86 pp 36-38

[Article by Wang Shouren [3769 1343 0088], Hunan Provincial Department of Agriculture: "Several Problems in Further Readjustment of the Structure of Agricultural Production"]

[Text] During 1985 we carried out in a planned way a rather tremendous all-around readjustment of the structure of agricultural production. Practice has shown the thrust of this readjustment to have been correct, and that it played a major role in establishing an equitable structure in agricultural production and even a new kind of rural industrial structure for vigorous development of the rural commodity economy and hastening the pace of peasants becoming rich. In particular, readjustment of the internal structure of the farming industry resulted in a reconfiguration and a reconstitution of all key elements in agricultural productivity between grain production and cash crops, and the effective destruction of the undiversified grain production structure to give impetus to rapid expansion of the growing of cash crops. However, inasmuch as readjustment of the structure of agricultural production during the last 2 years has been carried out in a new situation in which command planning has been abolished and in which centralized procurement and assigned procurement have been abolished, as well as in which there has been "an excess" of low grain sales, to a certain extent problems remain in loss of macro-control and blind readjustment that have impaired the economic and social benefits of readjustment. A critique of the lessons of experience of the past year show that genuine attention must be given the following several problems in making further readjustments to the structure of agricultural production.

1. Strengthening of the Basis For Readjustment To Insure Steady Increase in Grain

Sustained and stable development of agricultural production is the foundation for all-around vigorous development of the rural economy, and it is also a guarantee for the smooth development of secondary and tertiary rural industries. Grain serves as a strategic commodity for the prosperity of the country and the well-being of the people. Not only is it the most important material basis for social stability, but it is also an important guarantee for equitable readjustment of the structure of rural industry. It holds a decisive position in the entire rural economy. Consequently, firm grip must be taken on grain production as the foundation for readjustment of the structure of agricultural production, and there can be no loosening of this grip at any time.

Relatively speaking, the grain foundation in Hunan Province has been fairly good for the past several years. In 1983, gross output of grain reached 53.07 billion jin or 963 jin per capita. In 1984, gross output was 52.26 billion jin, or 938 jin per capita. As a result of the bumper harvests of the 2 previous years, in 1985 problems existed for a time with "difficulties in selling grain" and an "excess" of low levels of grain sales occurred. This plus the adverse effects of policy factors brought about a decline in peasant enthusiasm for grain farming and a relaxation of leadership in grain production. In particular, the loss of a grain harvest from a more than 1.4 million mu growing area that resulted from not transplanting seedlings because of a drought disaster, as well as the planned reduction by more than 2 million mu of the grain growing area to use it for the growing of cash crops, the digging of ponds to raise fish and the removal of farmland from cultivation to permit it to revert to forests and lakes resulted in the loss of nearly 4 million mu of the grain growing area in a single year and a fairly tremendous decline in grain output. In 1985, gross output of grain for the whole province was approximately 48.6 billion jin, output declined to slightly more than 860 jin per capita. Figured in terms of 1984 needs for grain by inhabitants of towns and villages, seed grain, livestock feed and for industrial use, the province must produce 48.6 billion jin of grain to satisfy its needs. Thus, it is expected that 2 billion jin of grain will have to be removed from storage in granaries to meet the quota to be supplied to the state. Clearly the province's grain foundation is already extremely brittle. Unless matters are taken firmly in hand, this will inevitably have an adverse effect on readjustment of the entire agricultural production structure and the rural industrial structure. The year 1986 is one of particularly great significance for revival of the province's grain production. Whether or not a fairly large scale increase occurs will very greatly affect both grain production and readjustment of the whole structure of agriculture during the entire Seventh 5-year Plan period.

Experience during the past 2 years in the readjustment of the agricultural production structure shows a need to maintain steady increase in grain production, the key question being correct handling of the relationship between readjustment of the structure and grain production. One aspect of the problem is an equitable readjustment of grain crop and cash crop patterns on the basis of current productivity levels and possibilities for increasing grain yields per unit of area, stabilizing the grain growing area fairly well and tying reduction in growing areas to increases in yields per unit of area so that the amount of readjustment required is kept within reasonable bounds, the growing areas being kept stable for the most part with little readjustment. Another aspect of the problem is no ill-advised expansion of the grain-growing area, cutbacks in development of cash crops and aquatic products breeding, or even institution of a new "taking grain as the key link" in the face of pressure from declining grain output to the detriment of equitable readjustment of the structure of agricultural production. The key to maintaining a steady increase in grain output lies in further study of pricing policies and inducements to rally peasant enthusiasm for growing grain. Emphasis should go to the spread and the application of new techniques, new actions and new varieties in a major effort to increase yields per unit of area. We have made some calculations that show that if no exceptionally large natural disasters occur, if the grain growing area is kept relatively constant, and if a major assault is launched on increasing yields per unit of area, Hunan Province's gross output of grain is likely to reach more than 51 billion jin in 1986. Most important is to tap the potential for increased yields per unit of area from the existing grain growing area. Were per unit of area yields for early and intermediate paddy and for dryland grain to revive to the levels of 1984, grain output for the area sown to grain in 1985 would increase 2 billion jin. Second in importance is expansion of the hybrid paddy growing area. Our preliminary plans, which are based on the plans of various jurisdictions and the availability of hybrid rice seeds in the province call for the growing of 24 million mu of paddy, up more than 3 million mu from 1985. Since yields of hybrid paddy average approximately 150 jin more per mu than conventional paddy, this action alone will increase output by 500 million jin. Third in importance is acceleration of the spread and use of new high yield fine varieties, a speed up in the replacement of varieties, and improvements in the make-up of varieties planted. In addition, if the harvest is normal, there is the prospect of recouping during 1986 some of the grain harvest lost from the grain growing area that was not transplanted or aborted due to drought, gross output of grain possibly approaching the 1984 level.

2. Expansion of the Growing of Cash Crops and of Aquatic Products Breeding Will Have To be Done Primarily Through the Tapping of Intensive Potential Plus All-Around Exploitation and Equitable Use of Resources

Readjustment of the structure of agricultural production entails a fundamental reform of the low quality and inefficient undifferentiated production structure of the past and the building of an optimized production structure in which proportional relationships of all industries are equitable and development is coordinated for more effective use of all natural resources and social resources, the level of agricultural productivity thereby expanding in an unprecedented way. Readjustment of the province's agricultural production structure in 1985 neglected, to a certain extent, the tapping of potential and all-around exploitation of resources. It was too much limited to undiversified readjustments to the existing farming area, and this adversely affected the readjustment of social results and economic results. Preliminary statistics show the overall situation in readjustment of the internal structure of farming in 1985 to have been as follows: a 2.45 million mu reduction in the grain crop growing area (including the area that was not transplanted or on which the harvest aborted as a result of natural disasters), and a 1.53 million mu increase over 1984 in the cash crop growing area. Gross output of grain was approximately 3.6 billion jin less than in 1984 for a 560 million yuan decrease in value (figured at 15.59 yuan per 100 jin of paddy), and an estimated 540 million yuan increase in output value from cash crops. This shows economic results gained from readjustment of the internal structure of farming not to have been very ideal.

Of course, suitable reduction in the grain growing area to expand cash crop and fishing industry production was entirely necessary, and it was also an inevitable result of the development of a rural commodity economy. The problem faced today is that, objectively speaking, a conflict in the use of farmland results from the need for sustained increases in grain production, which is related to the cultivated land area, and the need for major expansion of cash crop and fishing industry production. Ways to solve the conflict between steady increase in grain production and energetic development of economic diversification include not only major efforts to increase grain yields, but also expansion of the growing of cash crops and development of fishing industry production in two ways. The first is tapping of internal potential, striving to increase yields and economic results from the existing area. The province's cash crop production and the breeding of aquatic products both seem much less intensively done than the growing of grain in Hunan Province; production conditions are also poor by comparison; yields are lower; economic results are poor; and depletion of resources is fairly serious. Thus potential for cash crop production and the breeding of aquatic products is greater. If one begins with a major effort to increase yields, rapid realization of a doubling of yields from the present area is entirely possible. Take citrus fruit, for example. The province's citrus growing area currently stands at slightly more than 1.1 million mu. But since standards used in establishing citrus groves were low and since care is non-intensive, the producing area is small and yields per unit of area are small. The year 1984 was a bumper one for citrus production everywhere in the province. Gross output reached 4.19 million dan; nevertheless, yields were smaller than 500 jin per mu. Were effective actions taken to tap potential and transform existing citrus groves so that 70 percent of the fruit bearing orchards would produce yields of 2,000 jin or more per mu and so that 80 percent of young trees would produce fruit on time, gross output of citrus fruit for the province could reach more than 10 million dan, more than double the gross output for 1984. The levels of production achieved by some advanced citrus growing countries, and results achieved in bumper yields from large areas in some places in China both show that yields of approximately 4,000 jin are entirely achievable. Ten mu of bumper crop citrus groves on the Baotashan Horticultural Farm in Nanjing Village, Tuoxiku District, Anhua County in Hunan Province produced yields averaging 9,218 jin per mu in 1983. 1984 was a scant year with yields of 5,000 jin per mu; and in 1985 yields again reached more than 9,000 jin. The growing of other cash crops and fishing industry production likewise face the problem of tapping potential. Output of aquatic products from water surfaces in Hunan Province averaged 102 jin per mu in 1984. Yields are forecast at 111 jin for 1985. With proper institution of contract responsibility systems, firm grip on the transformation and upgrading of existing water surfaces, expansion of superior breeding water surfaces, and scientific use of large water surfaces, output from aquatic products breeding can be tremendously increased and fishing industry production throughout the province will be able to top anything so far achieved. Second is comprehensive exploitation and equitable use of resources. The cultivated land area in Hunan Province is small, and the grain field area per capita is even smaller. But mountainland resources are plentiful; there are vast waterlands; and potential for development is great. There is a substantial amount of barren mountains, wasteland, and water surfaces that serve no productive purpose. With scientific exploitation, these are suitable for the development of production. In the future, not only can some land that is not suited for the growing of grain or that produces only poor result be converted to the growing of cash crops or the digging of ponds for fish breeding, but development of grain production and fishing industry production need not compete excessively with grain production. The emphasis in expanding area should be placed on exploitation of resources and on actively studying the equitable use in multiple ways of existing resources to insure coordinated and steady development of both grain production and cash crops.

3. Firm Grip on the Three "Organic Links" To Guide Equitable Readjustment of the Structure of Agriculture

The first of the three organic links is the organic link between suiting general methods to specific circumstances and market demand. This requires both guiding the peasantry in making the most of strengths and avoiding weaknesses to make full use of local advantages, and effective use of market information to guide the peasantry in carrying out planting and goal-oriented production in accordance with consumption needs. Suiting general methods to specific circumstances can make fullest use of strengths in natural resources; however, this is not tantamount to being able to achieve dominance in the commodity economy. For example, though we emphasized fairly well the suiting of general methods to specific circumstances in past readjustments of the structure of agricultural production; nevertheless, we neglected to a certain extent the special economic laws that govern commodity production. As a result, development of some commodities was unable to meet changing market needs. This was particularly true of some noted local products such as Hunan Province's lotus, pearl barley, dragon tooth lilies, and edible day lilies. Because of the dislocation between production and market demand, plus failure to improve quality and the backward methods used in processing and packaging these products, slack sales, accumulation in inventory and a slump in prices has begun to appear in recent years. Therefore, in readjusting the structure of agricultural production, one must be certain to study market information, pay attention to the relationship between supply and demand and strive to improve quality in order to be able to translate product advantages into commodity advantages and gain the sought after economic results. Second is the organic link between guidance at the overall level and self-determination at the individual unit level, requiring both respect for the peasants' rights of self determination and the carrying out of effective overall control. In readjusting the structure of agricultural production, the authority to make readjustments must be handed to the peasants, on the one hand, enabling them to exercise self determination in production and operations in accordance with economic results. On the other hand, a bolstering of macroeconomic planning is necessary in conjunction with corresponding policy actions and economic methods so that development of production and planning of a guidance nature are dovetailed. One conspicuous problem in readjustment of the structure of agriculture in Hunan Province during 1985 was that in certain areas planning of a guidance nature was divorced from the development of production. In particular, output of some cash crops seriously exceeded plan and greatly exceeded both market ability to take them and personal ability to process them. At the beginning of the year, for example, plan guidance called for the growing of 260,000 mu of jute and ambari hemp for a gross output of 1.8 to 2 million dan. The actual growing area was expanded to 887,000 mu, however, and output of jute and ambari hemp was 3,297,000 dan, 3.4 times and 1.65 times again as much respectively as the original plan guidance. More than

700,000 dan remained in inventory even after normal processing and storage within the province plus sales outside the province. Third, readjustment of the structure as a whole must be organically linked to readjustment of the internal structure of individual industries, with the emphasis going to readjustment of the internal structure of individual industries. The kinds of things produced and the mix of products must be gradually adjusted in the direction of diversification, optimization, high yields and resistance to multiple growing problems in order to be able to meet diverse requirements for consumption and processing. Though Hunan Province has made some readjustments to the structure of varieties in recent years, the lack of differentiation remains a fairly prominent problem. In the grain field, development of livestock feed grains and raw materials for the food processing industry, notably barley, various kinds of beans and corn, has been slow. Though attention has been given to development of fine quality rice, the mix of early, intermediate and late maturing paddy is not sensibly matched. This hurts balanced, high yields. This is also the case with cash crops. The structure of fruit production is substantially one of three 80 percents, namely, oranges account for more than 80 percent of the total fruit growing area and total output. Among oranges, Satsumas account for more than 80 percent of the total growing area and gross output; and among Satsuma oranges more than 80 percent are late ripening varieties. Such a production structure is very much unsuited to diversified and balanced consumption.

9432
CSO:4007/400

BRIEFS

MORE GRAIN, CASH CROPS--Jiangxi has actively stabilized and reformed the structure of rural enterprise. The rural economy exhbits a new coordinated and stabilized development. During last year's reform of rural enterprise structure, Jiangxi implemented the principle of "Major stabilization and minor reform." The province has also reduced the grain-planting area appropriately, increased average grain production, and maintained the steady increase in total grain production. Under these conditions there was a major development of cash crops. Two methods were used for the development of cash crops--plans and directives for major crops and an open policy for minor crops that allows regulation by the market. Compared to the previous year, the area planted in cash crops increased 1.16 million mu last year, while the area planted in grain decreased 1.1 million mu. Grain production, however, increased 1.3 percent. Among the cash crops, production of jute and ambari hemp was 2.5-fold higher than the goal, ramie production was 1.1-fold higher, sugarcane production increased 30 percent, and other minor crops such as lotus seed, melons, vegetables, and medicinal herbs also increased greatly. The livestock and aquaculture industries also underwent great development. Supplies of meat, poultry, milk, and eggs improved significantly, and 1.2 million hogs were exported. During the structural reform of planting industries, rural areas in Jiangxi emphasized increasing the rate of land utilization. Soybeans and mungbeans were planted in the sugarcane fields of Ganzhou Prefecture, and many schemes that alternated irrigated and dryland farming were tried. Melons, vegetables, and potatoes were planted before "two-season, late" rice in Yichun Prefecture, and income per mu increased by about 300 yuan. This method ensured increased grain production and the development of cash crops. [Text] [Beijing JINGJI RIBAO in Chinese 16 Jan 86 p 2] 13015/7051

EXPORT OF FARM PRODUCTS--Last year exports of farm products in Jiangxi earned more than $85,700,000 U.S. in foreign exchange. Last year state purchases of local and animal products for export exceeded 200 million yuan; state purchases of grain and oil for export were more than 170 million yuan. Rice exports earned more than $13 million U.S. in foreign exchange. Jiangxi exported 50,000 tons of fine-quality rice last year. The 15,000 tons of rice exported by the province alone earned more than 5,110,000 yuan in foreign exchange. Last year, Jiangxi shipped 210,000 head of hogs to Hong Kong and Macao, and earned more than $14 million U.S. in foreign exchange. Last year the province sold 603 tons of pressed duck, which accounted for more than 60 percent of the Hong Kong market. [Excerpts] [Nanchang JIANGXI RIBAO in Chinese 1 Apr 86 p 1] /13045

CSO: 4007/405

OUTLOOK FOR AGRICULTURE DURING THE NEXT 20 YEARS

Shenyang NONGYE JINGJI [AGRICULTURAL ECONOMICS] in Chinese No 6, Dec 85 pp 4-9

[Article by Zhao Tianfu [6392 1131 4395] and Zhao Rui [6392 6904]: "Preliminary Exploration of Liaoning Province's Rural Economic Development Strategy"]

[Excerpt] Strategic Objectives and Major Economic Criteria for Development of Liaoning's Rural Economy

Analysis of the foregoing shows that the following assumptions may be made about the strategic objectives for development of Liaoning's rural economy: By the end of the present century, rural villages in every jurisdiction throughout the province will have established one after another cultured and prosperous new socialist villages that have taken the first steps toward modernization of agriculture, that have industries that have developed in an integrated way, economies that produce commodities, and fine environments where the material and cultural life of the peasants and their socialist ethics have risen very greatly. The main major economic criteria that will be needed and can be attained by 1990 and 2000 are as follows:

1. Gross output value of agriculture (not including industry at the village level and below): This will rise from the 9.62 billion yuan of 1984 to 12.7 billion yuan in 1990 and 18.41 billion yuan in 2000. In 1990 and 2000, an increase of 77.9 and 157.8 percent respectively will have taken place over the 7.14 billion yuan of the 1980 base period in an incremental 5.9 and 4.8 percent annual increase respectively. The incremental rate of increase for the 20 year period will average 4.8 percent per year.

This will include an output value for the farming industry of 7.5 billion yuan in 1990 and of 9.5 billion yuan in 2000 from the 6.31 billion yuan base figure for 1984. Using the 4.92 billion yuan of 1980 as the base period, this will amount to a 52 and 97 percent increase. The incremental rate of increase for the 20 year period will average 3.3 percent per year.

The output value of forestry will rise from the 370 million yuan of 1984 to 740 million yuan in 1990 and will reach 1.48 billion yuan in 2000. This will represent an increase of 100 and 300 percent respectively over the 370 million yuan of the 1980 base period. The incremental rate of increase for the 20 year period will average 7.2 per year.

Output value of animal husbandry will reach 3.01 billion yuan in 1990 and 5.2 billion yuan in 2000 from the 1.81 billion yuan of 1984. This will represent a 140 and a 316 percent increase respectively from the 1.25 billion yuan of the 1980 base period. The incremental rate of increase for the 20 year period will average 7.5 percent per year.

Output value of sideline occupations will reach 750 million yuan in 1990 and 880 million yuan in 2000 from the 710 million of the 1980 base period. This will mean a 142 and a 183 percent increase respectively from the 310 million yuan of the 1980 base period. The incremental rate of increase for the 20 year period will average 5.3 percent per year.

Output value of aquatic products will reach 700 million yuan in 1990 and 1.35 billion yuan in 2000 in a rise from the 420 million yuan of 1984. This will represent a 141 percent and a 365 percent increase from the 290 million yuan of the 1980 base period. The incremental rate of increase for the 20 year period will average 8 percent per year.

2. Output of Major Agricultural Products

Gross output of grain will rise from the 28.516 billion jin of 1984 to 32 billion jin in 1990 and 38.2 billion jin in 2000. This will mean a 31 and a 56 percent increase respectively from the 24.13 billion jin of 1980. The incremental rate of increase for the 29 year period will average 2.2 percent.

Gross output of pork, mutton and goat will reach 1.74 billion in 1990 and 3 billion jin in 2000 from the 1.1 billion jin of 1984. It will increase 102 percent and 248 percent respectively from the 860 million jin of the 1980 base period. The incremental rate of increase for the 20 year period will average 6.4 percent.

Poultry egg output will reach 800 million jin in 1990 and 1.44 billion jin in 2000 from the 436 million jin of 1984. This will be an 83 percent and 230 percent increase respectively from the 1984 base period. The incremental rate of increase for the next 6 years and next 16 years will be 10.6 percent and 7.7 percent respectively.

Dairy products output will reach 700 million jin in 1990 and 2.6 billion jin in 2000 from the 211 million jin of 1984. This will be a 232 percent and a 1,132 percent increase from the 1984 base period. The incremental rate of increase for the next 6 years and the next 16 years will be 22 percent and 16.9 percent respectively.

Output of aquatic products will reach 700,000 tons in 1990 and 1.68 million tons in 2000 from the 550,000 tons of 1984. This will be a 66.3 percent and a 300 percent increase respectively from the 1980 base period. The incremental rate of increase for the 20 year period will be 7.2 percent.

Output of timber will reach 1.5 million cubic meters annually and the forest cover rate for the province as a whole will reach 35 percent in 2000.

3. Output value of rural industry (not including industry in villages and small towns and below the village level) will reach 14 billion yuan in 1990 and 37.2 billion yuan in 2000 from the 5.82 billion of 1984. This will mean a 140 percent and a 539 percent increase respectively from the 1984 base period. The incremental rate of increase for the next 6 years and the next 16 years will be 15.7 and 12.2 percent respectively.

4. Output value of rural tertiary industries figured on the basis of 2 billion yuan for 1984 will reach 5 billion yuan in 1990 and 10.86 billion yuan in 2000. This will mean a 150 percent and a 440 percent increase respectively when figures for the 1984 base period are used to make calculations. The incremental rate of increase for the next 6 years and the next 16 years will be 16.3 and 11 percent respectively.

5. Output value of all rural industries (including the output value of all the aforementioned industries) will reach 31.7 billion yuan in 1990 and 66.47 billion yuan in 2000 from the 17.46 billion yuan of 1984. This will mean an 82 percent and a 280 percent increase respectively from the 1984 base period. The incremental rate of increase for the next 6 years and the next 16 years will be 10.4 and 8.7 percent respectively.

6. The gross output value of rural agriculture as figured from the 15.44 billion yuan of 1984 will reach 26.7 billion yuan in 1990 and 55.61 billion yuan in 2000. This will represent a 146 percent and a 413 percent increase from the 10.83 billion yuan of the 1980 base period.

7. Net output value of all rural industries for 1990, figured at 50 percent of the gross output value of all rural industries, will reach 15.85 billion yuan. Figured at 40 percent of the gross output value of all rural industries, it will reach 29.91 billion yuan in 2000.

8. Rural population (exclusive of the population of county seats). Authorities concerned forecast a population of 40 million for the whole province in 1990. Figured at 55 percent of total population at that time, this will mean a rural population for the whole province of approximately 22 million. By 2000 when the population of the whole province will be 44 million, figured at 40 percent of total population at that time, this will mean a rural population for the whole province of approximately 17.6 million.

9. Net national output value [gross output value minus taxes and interest payments] per capita of rural population (i.e., net output value of all industries) will by 720 yuan in 1990 and 1,699 yuan in 2000.

10. Net income [gross income minus expenses but not minus taxes and interest payments] from production per capita of rural population figured at 80 percent of net national output value per capita of rural population will amount to 576 yuan in 1990, plus an additional 10 percent of net income from sources other than production may bring the total to 633 yuan. In 2000, net income per

capita will reach 1,359 yuan, plus an additional 10 percent from sources other than production that may bring the total to 1,496 yuan.

11. Amounts of major farm products per capita for the province as a whole in 1990 and 2000 will be respectively 800 and 868 jin of grain and beans, 130 and 364 jin of fruit, 43.5 and 68.2 jin of meat, 20 and 32.7 jin of poultry eggs, 17.5 and 59 jin of dairy products, and 35 and 76 jin of aquatic products.

Strategic Actions

In order to realize the foregoing strategic objectives and criteria for development of Liaoning's rural economy, the main strategic actions that have to be taken are as follows:

1. Actively and steadily carry out a readjustment of the structure of rural industries.

Readjustment of the structure of rural industries is one of the most important strategic actions for realizing the strategic objectives in development of Liaoning's rural economy. On the basis of the guiding thought and strategic objectives for developing Liaoning's rural economy, future readjustment of the structure of Liaoning's rural industries will have to be carried out on three levels as follows:

First is in the farming industry where improvements have to be made on the basis of grain production and the supply situation for a gradual curtailment of the area planted to grain crops and expansion of the area sown to cash crops. In the future, except at commodity grain bases, it will be necessary to permit peasants to select freely the kinds of crops to be grown. In the selection of grain crops to be grown, peasants will have to be guided and helped to increase suitably the paddy and soybean growing area, to cut back appropriately on the growing of coarse grains, and gradually to increase gross output of fine grains [wheat and rice] from the present approximately 7 billion jin to 9 billion jin or more. In the growing of cash crops, emphasis should be placed on the growing of dry fruits [e.g. nuts, tree fungus and lily buds], or horticultural crops, and on various specialty crops, with vigorous efforts made to improve quality. The fruit orchard area should be expanded gradually from the present 5.3 million mu to 10 million mu and the level of intensivity of the growing of fruit be steadily increased.

Second is in agriculture encompassing farming, forestry, animal husbandry, sideline occupations and fisheries with accelerated development of animal husbandry, forestry and fisheries. Animal husbandry is a weak link in Liaoning Province's agricultural production, yet it is a crucial sector for the future improvement of the diet of the people in the province and for promoting a benign cycle within agriculture. Consequently, there has to be a rapid change in the weakness of animal husbandry to make it become a major industry within the agricultural economy. The output value of animal husbandry should be raised by 1990 to around one-fourth the gross output value of agriculture, and be increased to more than 30 percent of the gross output value of agriculture by 2000. Both the suburbs of large cities and grain producing areas have to give precedence to the development of animal husbandry, and within the structure of animal husbandry itself, simultaneous with firm grip on the raising of hogs must be an accelerating of the pace of development of poultry, eggs, milk and herbivorous animals of high economic value, for which the turn over of funds is quick and market requirements have grown fairly rapidly. It should also be pointed out that the scale of development of Liaoning's animal husbandry should not be solely in terms of the province's own ability to produce livestock fodder and market demand within the province itself. It is necessary to raise sights to make the province into a livestock products base for the entire northeastern region that is able further to transform Jilin Province's surplus grain.

Hastening of the building of forestry is not only a fundamental way in which to improve the province's ecological environment, but also can solve the rural energy shortage and lack of lumber as well as increase the peasants' earnings. Liaoning Province has fine conditions for the development of forestry, and it also has an urgent need to develop forestry. However, the forest cover rate for the province is presently only 23 percent, and distribution is very uneven. Forests provide very few direct benefits each year. Consequently, it is necessary to accelerate the building of forestry. During the present century, the forest cover rate for the whole province should be increased from the present approximately 23 percent to approximately 35 percent. Afforestation must be done particularly fast in the fairly seriously eroded western mountain regions of Liaoning, in the windblown sand area of the northern part of the province, and along the southern coastal areas. Within forestry, general methods should be suited to specific circumstances to plan the proportions of timber forests, economic forests, firewood forests and various kinds of shelter forests. Long range benefits from the building of forestry have to be combined properly with short-range benefits from the building of forestry.

In the fishing industry field, very great development should take place during the present century in view of the increasingly great gap between supply and demand for aquatic products in Liaoning Province and the advantageous conditions present in the province for development of an aquatic products industry. Coals areas should devote serious attention to the protection and propagation of in-shore fishing industry resources, and also strive to develop fishing grounds farther off-shore and in blue water. Major efforts should be devoted to development of coastal beaches and shallows for the propagation of aquatic products. Inland area should make full use of reservoirs and ponds to breed freshwater fish. Investment should be made in the processing and preservation of freshness of aquatic products and in using them in multiple ways. The main emphasis should go on the raising of fish, with efforts being devoted simultaneously to raising, catching and processing, diversified operations including production, supply and marketing being the guiding policy for development of aquatic products enterprises. The level of intensiveness in the aquatic products breeding industry should be steadily raised. Within the aquatic products industry, rational planning should be done for the production of fish, crustaceans, shellfish, seaweed and other delicacies of the sea.

Third is in the overall rural economy where the pace of development should be hastened in secondary and tertiary industries including rural industry, the construction industry, the transportation industry, business, the service trades and tourism. Rural industry will increasingly become a mainstay of the rural economy. Not only does it help improve the country's industrial pattern and hasten development of industry in general, but it also plays a decisive role in the realization of China's agricultural modernization and the building of burgeoning and prosperous new socialist villages. Liaoning is extremely blessed in terms of natural resources, funds, skills, markets, transportation and information for the development of rural industry. Consequently, special policies and forceful actions must be taken to create the various conditions necessary to provide support and encouragement to the development of rural industries run by townships, villages, individual peasants, households in partnership, and through joint ventures. Emphasis should be placed on the development of industries that make use of the advantages that rural villages provide such as the food industry, the livestock feed industry, the construction materials industry, small energy supply industries and the mining and smelting industry. It is necessary to continue to develop at the same time various industries such as machinery processing, clothing processing, etc., that spread from the cities. Cooperative efforts may also be made in conjunction with other provinces, capital from elsewhere and foreign traders to develop the processing of materials brought in from elsewhere, the assembly of parts brought in from elsewhere and compensation trade, plus the operation of all sorts of new industries in which we are able to compete.

Development of tertiary industries has just gotten underway during the past 2 years; nevertheless, its role in enlivening the rural economy and advancing development of the rural commodity economy is already extremely marked. Next it will be necessary to speed up particularly the development of communications and transportation, purchase and supply services, technical services, information services, finance and banking, and insurance services. The goal should be to make output value of secondary and tertiary industries amount to two-thirds or more of the gross output value of all rural industries by the end of the present century.

2. Constant reform and improvement of the rural economic system: Reform of Liaoning Province's rural economic system has already scored very great results. The great development of the rural economy in recent years has benefited largely from reform of the rural economic system. Nevertheless, with development of the rural commodity economy and solution to old contradictions, new contradictions have constantly come to the fore. There has to be constant reform and improvement of the rural economic system to meet needs in developing the commodity economy. The main strategic actions that should be given attention in this regard are as follows:

a. Use of various means for constant improvement and development of the rural cooperative economy, such as further improvements in cooperative economic organizations of a regional nature, encouragement and help to family farms for further development in the direction of specialized and cooperative modes of operation, and widespread development of a stock share cooperative economy and joint city and countryside economic organizations, etc., to meet needs for sustained development of rural productivity.

b. Reform and improvement of the rural economy's plan management system, with the emphasis on reform of those portions of the plan management system that rely solely on administrative fiat and on central control that is separated from local control; establishment under guidance of state plan of an economic system to regulate production and the system for exchange of goods that make fullest use of economic techniques such as the role of market regulation and wide application of price policies, tax collection policies and financial and banking policies, the peasants thereby being able to exercise full self-determination in their operating decisions.

c. Reform and improvement of the rural business system. The separation between cities and the countryside, the separation of one region from another, and the commercial system of state-owned businesses and the monopoly position of supply and marketing cooperatives has to be further demolished in order to expand the flow of goods and improve business efficiency as the business economy develops. It should be replaced with a less restricted, multi-channel, competitive commodity circulation system with fewer links so that channels for uninhibited flow of all kinds of commodities among rural villages and between cities and the countryside.

d. Reform of the inequitable price system. The inequitable plan price and fixed price system has to be reformed and full use made of the regulatory role of market supply and demand on prices so that price parities between industrial and agricultural goods, price parities among various agricultural products, and regional and seasonal price differences for goods can reflect at once changes in the value of goods and in the relationship between supply and demand.

e. The rural financial and banking system that stresses public finance and slights credit has to be reformed for full use of credit to amass and distribute social funds and to channel the direction of flow of funds in order to enliven rural finance and banking. This will require increasing the role of banks in dispensing rural funds, reviving the cooperative economic nature of credit cooperatives, building more diversified rural financial and banking systems, and using diversified means of developing rural capital markets. The rural tax collection system should also be reformed and improved on the principle of developing the economy and assuring supply.

3. Unremitting firm grip on the technical transformation of the rural economy: This requires, first of all, a greater technical transformation of agriculture, using organic agricultural techniques and inorganic agricultural techniques at the same time, traditional agricultural techniques and advanced modern agricultural techniques in combination, and the use of nature and the transformation of nature together for steady improvement in agricultural techniques in the gradual building of a modern system of agricultural technology in which the soil productivity rate, the labor productivity rate, and the net benefit rate from capital rise steadily and the agricultural ecology is able to improve steadily. In the farming industry, major efforts should be devoted to the propagation, dissemination and replacement of fine varieties; to improvement of the farming system and fertilization methods, to the spread and use of plant protection techniques that combine prevention and control through the use of both pesticides and biological methods; and to

development of agriculture through the conservation of water in growing paddy and the use of plastic mulch, and hot house farming facilities. In animal husbandry, not only should emphasis be devoted to fine breeds, but special attention must be given to the production and use of blended livestock feeds. In forestry and aquaculture, attention should focus on the study and application of modern science and technology. In farming, forestry, animal husbandry and the fishing industry, the emphasis should be on steady rise in the level of mechanization and improvement in basic production methods. The goal should be for all aspects of agricultural technology throughout the province to reach the level of a moderately developed country by the end of this century.

Simultaneous with emphasis on the technical transformation of agriculture must be vigorous efforts to bolster the technical transformation of rural industry and of tertiary industries. Rural industry in Liaoning Province has old equipment, antiquated technology and a low level of mechanization. Unless this state of affairs is changed, improvement of economic results will not be possible, and it will not be possible to survive and develop in the midst of fierce market competition. Thus various channels and methods must be used to hasten the transfer to rural villages of technical equipment, technical achievements and technical personnel from urban industries. Places having requisite conditions must also dare to import modern techniques and equipment from abroad. Efforts should be made so that village and small town industries throughout the province will be substantially able to become equipped with contemporary or modern techniques and equipment by the end of this century. A problem also exists in the technical transformation of rural tertiary industries. The emphasis of technical transformation in this regard should be on bolstering rural commercial base facilities for a very fast increase in capabilities to maintain the freshness of agricultural and sideline products and to store, process and transport them.

4. Improvement in the use and development of energy and water resources: As the urban and rural economies of Liaoning Province develop, problems with an energy shortage and insufficient water will become more and more prominent. Thus, special attention must be directed to these problems as part of strategic actions for development of the rural economy of Liaoning Province. A place of special importance must be given to the development of small energy sources such as small coal mines and small hydroelectric power industries. In addition, active efforts must be made to develop and use solar energy, wind energy and biological energy.

Conservation measures and measures for the exploitation of new water sources have to be taken in concert in order to solve the water shortage problem. The principal measures for water conservation will be in agricultural production through strengthened control in the use of water for farmland irrigation, plugging leaks in irrigation ditches, promotion of farming methods that conserve water, expansion of the use of plastic mulch, spray irrigation, drip irrigation, etc. In industrial production, control over the use of water has to be intensified and the recycling rate for waste water has to be improved. One way to exploit new water sources is to move water from other provinces, specifically the opening of the Songliao Canal, to bring water from the Songhua Jiang into Liaoning Province. Not only would this greatly ameliorate the serious shortage of water sources in Liaoning, but it would also hold major significance for solving transportation problems in the three northeastern provinces and for making the northeast region's economy prosper. Yet another way to solve the lack of water sources in Liaoning Province is to build large reservoirs within the province in the upper reaches of the Taizi He, the Kou He and the Raoyang He, and to increase the water storage capacity of the Qing He reservoir. The latter method would require little investment for quick results, so efforts should be made to carry it out as soon as possible.

5. Accelerated building of small city and town, and rural communications and transportation: The building of rural market towns and rural roads is a strategic measure for promoting the blending of cities and the countryside and for making the city and countryside economies prosper. Preliminary statistics for 1984 show Liaoning Province as having a total of 103 organic towns with a population of approximately 3,254,000, or 9.1 percent of the population of the whole province. Output value of market town industries accounted for 14 percent of the gross output value of industry for the whole province. This has played a very great role in the prospering of the rural economy, culture and daily life. However, in comparison with other economically developed areas of the country, Liaoning's rural market towns remain very undeveloped. Future readjustments to the make-up of rural industries and coordinated development of tertiary industries will make imperative a very great expansion in the number of rural market towns. This will require a speed up in the building of small rural cities and towns insofar as conditions for the development of small cities and towns exist in individual jurisdictions. In the building of small cities and towns, general methods will have to be suited to specific circumstances. Some places will be able to develop composite small cities and towns; some places will be able to develop industrial or commercial small cities and towns, transportation and port cities and small towns, or tourism cities and small towns, etc. Efforts should be made so that by the end of this century the more than 1,100 places in the province that have township governments will form small cities and towns that become local rural political, economic, cultural and information centers.

Communications and transportation are links between the city and countryside economies, and they are a basic requirement for building a rural commodity economy, for improving the flow of goods between cities and the countryside, for making the economy prosper, and for building prosperous rural villages. Some developed countries in the world today are devoting extremely serious attention to communications and transportation, particularly to highway construction. Standard highway length per square kilometer has already become a criterion for judging the extent of economic development. Though communications and transportation are fairly well developed in rural areas of Liaoning Province, they still lag far behind needs for rural economic development. For this reason, the building of rural highways and waterways must become a major strategic future action. It will be necessary to act in a spirit of self-reliance and arduous struggle using civilians to carry out construction, civilian action with public support, state assistance, local contribution of funds, amassing of funds by units, and labor contributions by the masses to hasten progress in the building of highways and waterways. Highway construction should be emphasized in mountain regions, in particular.

Efforts should be made so that by the end of this century every fairly large rural habitation throughout the province will have a highway connecting it to the outside world over which scheduled transportation travels.

6. Training of rural construction talent and raising the quality of cadres and peasants: In the final analysis, hastening development of Liaoning Province's rural economy depends on skilled people. Though the cultural and educational level of Liaoning Province is fairly well developed in comparison with most parts of the country, and though talented people are readily available, nevertheless, there is a shortage of talent in rural areas. Therefore, the human talent issue is the crux in realizing the strategic objective of developing Liaoning's rural economy. Thus, extremely serious attention must be devoted to an investment in intellect in rural areas in the field of agriculture, and energetic efforts devoted to the training up of human talent to build rural villages and agriculture. Effective actions have to be taken, diverse methods used, and schools operated at different levels to build an educational system for all kinds of talent needed for rural villages and agriculture. City schools at all levels and of all kinds must become more geared to rural villages and focus more on needs in building rural villages and agriculture to expand the numbers of students enrolled. Rural villages must also be self-reliant to hasten the training of specialized talent. Simultaneous with serious attention and squarely facing the all-day system for training talent must be efforts to develop after hours education and short-term education in rural villages. Various means must be used so that by 1990 every township in the whole province will have at least 10 graduates from institutions of higher learning of various kinds and at least 30 graduates of technical secondary schools who are able to undertake various kinds of construction. Most rural villages throughout the province should make a junior middle school education the rule. By the end of this century, there should be 30 college graduates and 100 graduates of technical secondary schools engaged in work in every township, and in most rural villages throughout the province a 12-year senior middle school education should be the rule.

9432
CSO: 4007/214

USE OF MACHINERY IN FARMING, ANIMAL HUSBANDRY INCREASING

Hohhot NEIMENGGU RIBAO in Chinese 28 Nov 85 p 1

[Article by Chen Xiaojun [7115 1420 6511]: "Mechanization of Region's Farming and Animal Husbandry Burgeons. Diverse Forms of Operations Co-exist, Household Ownership and Household Operations Predominating"]

[Text] As reform of the farming and pastoral region economy advanced in the course of the Sixth 5-Year Plan, mechanization of the Nei Monggol Autonomous Region's farming and animal husbandry burgeoned. This brought about a heartening situation of highly efficient development of the mechanization of farming and animal husbandry in which diverse operations co-exist, ownership and operations by farmer and herdsmen households predominating. In 1984, the farming and animal husbandry industries in the region had 6,286,000 horsepower of farm machines versus 5.66 million horsepower in 1980 for an 11 percent increase. This included 11,859 tractors, up 113.4 percent from 1980; 63,586 small tractors in 1984 versus 15,506 in 190 in a more than fourfold increase; 99,078 agricultural and sideline products processing machines of various kinds, up 8.2 percent from 1980; and 19,600 hauling machines for farming and animal husbandry versus 34,713 in 1980 for a 160 percent increase.

During the Sixth 5-Year Plan, two features emerged in the region's farming and animal husbandry industries as follows: First was destruction of the narrow patterns of the past with a change from the sole mechanization of farming to mechanization that served the overall development of diversification in farming, forestry, animal husbandry, and sideline occupations, agriculture, industry and business, transportation, construction and the service trades. Peasant and herdsman needs for different kinds of machinery became greater and greater, the numbers needed became larger and larger, and requirements for technology and quality became higher and higher. Second was destruction of the former pattern of mechanization being done solely by official organizations and the emergence of diverse patterns of operations in which individual households predominated, but in which state-owned organizations and collective cooperation was also a part. As of the end of 1984, individual households were using more than 83,000 tractors. This was 82.4 percent of all the tractors owned in the region. Farm machine specialized households who specialized in the use of machines for farming and different kinds of specialized households using farming and livestock industry machines for planting, raising of livestock, processing and transportation are in process of becoming the principal forms for the use of machinery in the farming and animal husbandry industries.

9432
CSO:4007/224

NEW EXTENSION EFFORTS SUCCESSFUL IN DISSEMINATING TECHNOLOGY

Yinchuan NINGXIA RIBAO in Chinese 23 Dec 85 p 1

[Article by Fan Xuehong [2868 1331 1347] and Li Yong [2621 0516]: "Advanced Production Technology Gives Agriculture Golden Wings with Which to Fly"]

[Text] During the period of the Sixth 5-Year Plan, some advanced agricultural production technology has been been extended in Ningxia, giving agriculture golden wings with which to fly. During the past 5 years, Ningxia has emphasized extension. It has promoted 13 projects, including plant cultivation and protection, nurture of soil fertility, and has obtained excellent economic returns. Total grain production in Ningxia rose from 2.25 billion jin in 1980 to 3.08 billion jin in 1984. Although in 1985 there were serious natural disasters, it is predicted that total grain production still will be more than 2.8 billion jin.

After the 3d Plenum of the Eleventh CPC Congress, Ningxia's agricultural production has shown unprecedented development. The broad masses of peasants are demanding more and more in agricultural science and technology.

Every level of agricultural technical extension departments in Ningxia have proceeding according to actual circumstances and have selected a number of new agricultural technologies for extension. These require little investment, offer promising returns and a relatively simple process of extending their application into the field, and are appropriate to Ningxia's conditions. Excellent results have been obtained. For example, rice production is a special strength of Ningxia. During the period of the Sixth 5-Year Plan, gradual extension of the application of field cultivation with plastic films, hybrid rice varieties, and other new cultivation technologies has resulted in average rice yields increasing from 945 jin per mu in 1980 to 1,114 jin per mu last year. This is an increase of 169 mu. Single-cropped rice yields are the highest in China. The extension of high-yield, low-cost technologies for rice has won a national award in agricultural technical extension. In wheat production, the extension of wheat and corn interplanting, the use of multiple and intercropping techniques and the planting of spring wheat on medium- and poor-quality fields, and the use of comprehensive, improved cultivation techniques have increased per-mu yields approvimately 100 jin on 1 million mu of medium- and poor-quality fields in the irrigated area that were planted in spring wheat. After the extension of intercropping techniques for wheat and corn, per-mu yield of corn was more than 250 jin. The gradual extension of plastic cover techniques is another significant accomplishment for agricultural extension in Ningxia during the Sixth 5-Year Plan. At present, vegetable cultivation in fields covered with plastic film have been extended to 110,000 mu. The value of their per-mu production is 100 yuan more than that of vegetables planted in the exposed earth. In addition to this, plastic film cover of seedlings and cultivation of economic crops also has been very successful.

At the same time that agricultural technologies are extended in the area irrigated by the Huang He, dryland agricultural technologies are also being extended in Ningxia's mountainous southern districts. In Guyuan County, new techniques have been used this year in planting wheat on 160,000 mu. Although weather conditions have not been advantageous, good results of an average per-mu yield of 236 jin were obtained. Average per mu yields reached 312 jin on 50,000 mu of demonstration fields in Xiji County.

During the Sixth 5-Year Plan, Ningxia also has put much effort into extending other effective techniques, such as plowing stalks back into the ground, planting with green fertilizers, and using chemical herbicides. These have improved the soil and increased the amount of organic material. They have helped increase production of agricultural crops.

During the Sixth 5-Year Plan, Ningxia has been able to achieve such good results in agricultural extension because of the emergence of a basic agricultural extension system throughout the region. At present, most counties and cities have agricultural technical extension centers, townships have agricultural technical stations, villages have technical extension offices, and every team has one or two households that are science and technology demonstration households. In accordance with the special characteristics of particular villages and the seasonality of the various crops, agricultural extension units at every level each year sponsor agricultural technical training classes for each period. Some 150,000 have been trained in these classes. At the same time, wired broadcasting systems have been used for promotion, exhibitions have been sponsored, science and technology fairs have been organized, question-answer windows have been established, and other techniques have been used to help get technical agricultural information to the peasants. The regional and country agricultural extension departments have printed more than 1.2 million pamphlets covering all kinds of technical material. This has helped the broad masses of peasants to study and apply science.

12994/7051
CSO: 4007/244

BRIEFS

FORESTS SEEDED BY AIR--Shaanxi has achieved great success in aerial seeding of forests. It has the highest rates of success over successive years for creating forests in northern China. Shaanxi's large-scale afforestation program of aerial seeding began in the early 1970's. The first area seeded by air was the Qinbashan area. During the past 17 years, 8.07 million mu of forests have been created by aerial seeding. Shaanxi has the highest rates of success over successive years for creating forests in northern China. It has hastened the greening of Shaanxi's highland and border districts. At present, the Qinbashan District has already established a number of timber-producing bases, including 82 that are each over 10,000 mu in area. Within Shangxian, Danfeng, and Shanyang counties, there is one large forest that has reached 250,000 mu. At the same time, many years of experimental aerial seeding of Shaanxi's areas of loess plateaus, hills, and gullies, and areas where sand is blown by the winds along the ancient Great Wall also has achieved good results. Experience has been gained which can serve aerial afforestation work after today in China's three northeastern provinces. [Text] [Xi'an SHAANXI RIBAO in Chinese 24 Jan 86 p 2] 12994/9871

CSO: 4007/277

AQUATIC INDUSTRY 'REQUIRES MAJOR DEVELOPMENT'

Chengdu SICHUAN RIBAO in Chinese 23 Feb 86 p 2

[Article by Sichaan Aquatic Bureau: "Aquatic Industry Must Undergo Significant Development"]

[Text] After the 3rd Plenum of the 11th CPC Central Committee, the Sichuan aquatic industry has entered a new period of development. Under leadership provided by all levels of the CPC Committee and government and with the support of the relevant sectors, a diversified responsibility system for fisheries was implemented, and fishery management was strengthened. Results of these actions were obvious, and the aquatic industry in Sichuan has developed very rapidly. Total production of aquatic products in Sichuan reached 129,000 tons last year, exceeding the goal established in the Sixth 5-Year Plan by 44,000 tons. This was more than twice the 1980 production. Major farmers (fishermen) specializing or partially specializing in aquatic production have begun to leave natural economic conditions behind and to enter the unlimited commodity economy. The fishery economy has become stronger and stronger. There is, however, a significant disparity between the development of the aquatic industry and people's demands. Some problems and difficulties have appeared, e.g., services and essential components, such as fingerlings, technology, and feed, could not adapt to the speed of development. Yields are also relatively low, and the emphasis at all levels of the aquatic management sector has not completely shifted toward strengthening overall control and serving the lowest level, We need to clearly understand this situation, conscientiously solve the problems, and stimulate the major development of the aquatic industry.

The provincial CPC Committee and government have clearly identified the guiding principles and goals for our aquatic industry during the Seventh 5-Year Plan. These are: "Development of the aquatic industry depends upon breeding, and this should be conducted at the individual household level.

Breeding, reproduction, and harvest should be combined. The state, communities, and individuals should work together and try to quadruple production by the end of the century. Annual production should increase to 500,000 tons or more, and per capita consumption should increase from 1 kg to 5 kg." In order to achieve these goals, our aquatic industry should establish a solid foundation within the next 5 years and develop sufficient strength for the following 10 years. This will require the continued implementation of central and provincial CPC Committee documents concerning the accelerated development of the aquatic industry. The guiding principles of aquatic production must also be corrected, and reform should provide momentum for increasing economic results. Specifically, we must carry out the following:

We must continuously implement and improve the diversified responsibility system for fishery production. At the present time, more than 20 percent of provincial waters where fish can be cultivated, such as ponds, reservoirs, and lakes, have not implemented the fishery responsibility system; in some of the waters where the responsibility system has been implemented, profits have been very low because contracts were lacking. Many problems also remain in the establishment and utilization of some large- and middle-sized water systems because of unsolved problems with the management and responsibility systems. Under the direction of local governments, all levels of the aquatic production sector should diligently pursue effective measures to solve these problems and fully utilize the water available for fish culture. State farms and stations must reform and perfect their responsibility systems and establish healthy regulations. All levels of the aquatic production sector must coordinate management and services with economic work in order to create conditions were an economic entity can be formed.

Development of production must be based mainly upon internal efforts. There is great potential for the development of the aquatic industry in Sichuan. For example, the average national yield for fish cultivated in ponds was 82.5 kg per mu in 1984. In Sichuan, the yield was only 43.5 kg, a very large disparity. At the present time, beside further implementing and perfecting the fishery production responsibility system we must fully realize the potential of all types of water resources. We must publicize typical experiences with high quality and yields and conduct further trials. Advanced cultivation techniques and superior fish varieties should also be publicized.

We must reform production procedures and management conditions and increase profits. This year, central planning and open management must be implemented for the establishment and utilization of large- and middle-sized water systems. We must consider local conditions and develop crib and breeding high quality fish in running water. We must realize the potential of large- and middle-sized water systems and strongly develop family-type fish cultivation and that in rice paddies.

We should continue to adopt diversified methods, to effectively publicize science and technology, and to conduct educational programs. This year, we must act in accordance with the relevant regulations and fully utilize the results of classifying fisheries in the entire province. We must rapidly shift the emphasis of aquatic science and research toward fish cultivation by the general population and toward small-scale, intensive cultivation methods. We should now stress the introduction and promotion of new varieties. Experience has shown that fish cultivation using running water and crib techniques can be successful in Sichuan. These methods deserve vigorous promotion. Mixed particulate feeds should be developed, and production should be small-scale and adapted to the demands of fishery development. Trained personnel are critical for the new development of the aquatic industry. We should not only vigorously stress education to train qualified personnel for the aquatic industry, but we must also fully utilize the strengths of existing technological personnel. We must systematically establish technical training classes in order to put advanced science and technology into the hands of the producers as soon as possible.

We should enhance management of the fisheries industry. We must raise the status of fisheries management to the same level as that of production. We must continually enhance the expansion of fishery industries and speed up the improvement of its management so that fishery management can progress from simple protection of natural waters to the protection of waters used for artificial cultivation. "Fishery industry regulations" were recently issued, and all areas should studyaand promote these regulations. When the relevant provisions and details of the regulations are implemented, in-depth studies of their implementation should be conducted. In order to solve existing problems, all areas should coordinate with other relevant sectors such as security, legislative, and environmental protection.

We must revitalize the marketing of aquatic products. The aquatic sector should change its former tendency to emphasize production and neglect marketing. They should seek new means and forms to revitalize marketing of aquatic products in order to be able to meet the increased market demand that will appear after price restrictions are removed. We suggest that local areas adopt some policies and measures this year that are even more flexible and adaptable. They should apply open management techniques, such as multiple economic components, multiple channel marketing, and management diversification. All levels of aquatic production companies should separate administration from production and establish economic entities as soon as possible. They should also begin active economic cooperations that extend beyond their area and industry and perform their service work well. Planning should be centralized in all large- and mid-sized cities, wholesale trading markets for aquatic products should be established, and more sales networks should be established. These actions will allow peasants to come to the cities to sell their aquatic products.

13015/9835
CSO: 4007/328

PEANUT MARKET, PRODUCTION IMPROVEMENTS EXPLORED

Chengdu SICHUAN RIBAO in Chinese 28 Mar 86 p 4

[Article by Tao Meichuan [7118 5019 0278] under the rubric "Production and Market Analysis": "The State of Peanut Production and Marketing in Sichuan and Ways To Improve Production"]

[Text] Encouraging prospects have emerged for peanut production in Sichuan's farming industry. Although Sichuan is not the nation's primary production areas, we possess several clear distinguishing features: First, the production area is relatively concentrated. In the established production area around the city of Neijiang, each county continues to exploit appropriately pooled advantages in a manner adapted to local conditions. The new production area of Nanchong Prefecture has followed this example, and its gross peanut yield has jumped to second place in Sichuan. Second, improved varieties are fairly widespread. The nationally renowned "Tianfu No 3" variety was bred in Sichuan, and after it was disseminated throughout the province per-mu yields rose 40 to 50 percent. Third, we have vast sales markets. Because their quality is good, Sichuan peanuts are well-received on domestic markets as well as in foreign trade. In addition, we have established a fairly stable foreign export base. These are all conditions that favor expansion in peanut production and improvement in the ratio of marketable peanut products.

Since the 3d Plenum of the 11th CPC Central Commitee, there has been a sustained growth trend in Sichuan peanut production. In addition to the prerequisite of "grain in hand" among farmers, readjustment of agricultural composition and the market pricing mechanism have played obvious roles in bringing this about. Grain fields were maintained at a stable level while cotton growing area in Sichuan was readjusted to some extent, yielding a favorable geographic area for expanded peanut cultivation. Past crowding of grain and oil-bearing crops onto a single plot of land, where they compete for fertilizer, has been largely alleviated. Peanuts themselves possess nodule bacteria which function in nitrogen fixation, and their vines, leaves, and shells provide material for fodder and fertilizer. They are very beneficial in breeding and cultivation industries. Simultaneously, the state has reduced the peanut procurement assignment by 14 percent and increased the purchase price by a large margin. Along with increased production, this has brought an increase in the quantity of peanuts that may be disposed of by the farmers themselves. In addition, through production and marketing the farmers can directly observe and obtain market information, and this has aroused initiative among farmers to develop commodity production.

Right now the farmers are concerned about whether Sichuan needs to continue developing peanut production. To answer this we must first look at national and provincial market situations. The departments concerned forecast that on the national market current production and sales of the peanuts themselves are at an appropriate level and supply and demand are balanced, but the production of peanut oil is insufficient for the market and supplies fall short of demand. As for Sichuan, because the production area is small and concentrated and the market area is large and vast, there are still insufficient peanut supplies to meet demand, not to mention using surplus peanuts for processing peanut oil. Calculating based on 1985, the year of highest yield, peanuts reserved for seed and for home consumption amounted to approximately 45 percent of total output. Aside from what was sold to the state, the remainder sent to market added up to less than 200 million jin. Because we cannot yet meet market demand the trading price is still holding at the previous year's level, which is 10 to 20 percent higher than the state's list price. We must also realize that, even with a significant increase in peanut output, after we meet urban and rural nonstaple food requirements and wind up with surplus peanuts we can still develop intense processing and multipurpose uses for peanuts. Sichuan peanuts have a high oil content, and if we process them into peanut oil we can sell the oil in the various coastal provinces. We can also process peanuts into peanut butter and artificial butter to satisfy various levels of demand. Peanut shells and kernel coatings can also be processed into many useful products to improve economic results.

From this we can see that there are bright prospects for peanut production in Sichuan. Right now, production, scientific research, and management sectors must cooperate to begin the job: First, we must carry on with a management system that combines state procurement with market regulation. Only that way can we give consideration to both essential state needs and the many levels of consumption among the people. State procurement assignments and purchase prices must be relatively stable; it is inadvisable to make frequent adjustments. In addition, we must assign responsibility to households through the use of contracts, and after contract assignments are completed surplus peanuts may be handled by the farmers themselves. To help farmers obtain fairly accurate information and thus develop commodity production based on market demand, prices in multichannel operations should not fluctuate widely. Second, we must improve the level of scientific planting. The way to improve peanut yield under the prerequisite that "grain production must not be slackened," is to vigorously tackle unit production and improve quality. In Sichuan's 30-odd primary peanut-producing counties, in 1984 the highest per-mu yield was 378 jin (in Yingshan County), and the lowest was a mere 152 jin. The per-mu yield in the vast area of Zitong County measured 209 jin, though mulched planting was practiced on 500 mu of this area and yielded 593 jin per mu. Obviously, in Sichuan vast potential exists for peanut output per unit of area. If we disseminate science and technology, such as selection of improved breeds, prudent fertilizer application, mulch ground covers, and interplanting of peanuts with wheat, we may achieve a major increase in yield. Third, we must gradually develop households specialized in peanut production, encourage intensive farming, and have the departments concerned do a good job on pre-production and post-production services. Where the conditions are right we must also provide high-efficiency, energy-saving stoving equipment and alleviate the pressures of increased yield coupled with drying problems. Fourth, scientific research and management sectors both must research multipurpose uses for peanuts and their by-products and then supply the technology to producing areas in order to exploit their advantages and improve economic results.

12510
CSO:4007/367

SICHUAN

CONTINUOUS DEVELOPMENT OF SWINE PRODUCTION, SALES

Chengdu SICHUAN RIBAO in Chinese 21 Feb 86 p 2

[Article: "Swine Production and Sales Are Experiencing Steady Development in Sichuan"]

[Text] Swine production in Sichuan will continue its steady development in 1986. Expected developments include: farmers' enthusiasm for swine breeding is high; rural specialized households engaged in swine breeding are developing rapidly; the number of swine ready for slaughter is increasing; management is operating smoothly; pork supplies are abundant; and meat markets are prosperous and active.

1. Swine production is developing steadily, and its overall situation is good. According to a survey covering 32 counties in Sichuan that was conducted last November, the total number of swine in stock has increased 4.4 percent compared to the same period last year. Boars and sows have increased by 1.3 percent, piglets have increased by 1.75 percent, and breeding fat swine have increased by 5 percent. The number of piglets and breeding swine in pens will be sufficient to replace those that are being slaughtered in 1986. Considered in terms of the numbers of available swine, breeding swine weighing more than 100 jin have increased 12.2 percent, while large pigs weighing more than 130 jin have increased 17.5 percent compared to the same period last year. Thus, the swine supply this spring is quite sufficient.

2. Farmers' enthusiasm for swine breeding is high, and rural specialized households engaged in swine breeding have developed rapidly. Last year, total grain production in Sichuan decreased, and grain prices have increased somewhat. Market prices for rice, wheat, corn, peas, and hu [5519] beans have increased by 0.04-0.05 yuan per jin. Farmers' enthusiasm for swine breeding was not affected, however, and swine production continued to develop. The price per jin for piglets has increased from 0.83 yuan last year to 1.19 yuan. Reasons include: First, grain production in Sichuan had increased for 8 consecutive years, and rural areas have grain in reserve. Among the major spring crops, sweet potatoes production was high in many areas. Its good harvest provided feed resources for swine breeding. Second, sales prices have increased by 0.1 yuan after price restrictions on swine were removed. Farmers selling 1 pig can increase their income by 20 to 40 yuan.

From the standpoint of the development of specialized households engaged in swine breeding, there were about 600,000 specialized households in Sichuan in 1985. This was a 22.45 percent increase compared to 1984. Continued increases in the number of specialized households will further stimulate the development of rural swine commoditization.

3. Pork is in plentiful supply, and consumption levels continue to increase. Calculations based upon the above survey indicate that there will be about 44 million swine slaughtered in Sichuan in 1986. The state will purchase about 40 percent, and other management channels will take the remaining 60 percent. About 4.4 million swine will be exported. Per capita pork consumption in Sichuan is 36 jin, an increase of 2 jin compared to 1985.

13015/9835
CSO: 4007/328

BRIEFS

SICHUAN LARGEST PORK SUPPLIER--Sichuan has become China's lagest pork supplier, and 1985 production reached 2.6 million tons or one-sixth of China's nationwide annual production. Per capita pork consumption in Sichuan was 24 kg, the highest in China. Swine breeding is now the most important segment of livestock production in Sichuan. It generates 500 million yuan in taxes and profits, one-tenth of Sichuan's budget revenue. Last year, pork exports to the domestic market were 300,000 tons, and the swine commodity rate reached 60 percent. The livestock industry in Sichuan had been stagnant for a long time; total meat production in 1978 was only 1.1 million tons. During the Sixth 5-Year Plan, the Sichuan livestock industry implemented many reforms. Farmers were allowed the right to self-management, and productivity was rapidly unleashed. The swine-breeding industry has now expanded from specialized households to combined households and major breeding households. The average annual slaughter per household is 30 to 40 animals, but some household's slaughter is as high as 500. In 1985, Sichuan slaughtered 43 million hogs, a number equal to the total of the previous 10 years. Total production value was 6.5 billion yuan, or more than 21 pecent of total agricultural production value. [Text] [Beijing RENMIN RIBAO OVERSEAS EDITION in Chinese 10 Jan 86 p 1] 13015/7051

RURAL SAVINGS--For the past few years, with the stimulation of the rural economy, peasant income has increased, living standards have improved, and Sichuan's rural savings have increased. During the 6th 5-Year Plan, total savings increased from 800 million yuan to 4.3 billion yuan, the average annual increase was 40 percent. In the first quarter of 1986, provincial rural savings increased by 350 million yuan, and average per capita savings surpassed 50 yuan for the first time. [Excerpt] [Chengdu SICHUAN RIBAO in Chinese 21 Apr 86 p 1]

CSO: 4007/405

YUNNAN

GREATER INCENTIVES TO GROW GRAIN RATHER THAN CASH CROPS URGED

Kunming YUNNAN RIBAO in Chinese 28 Mar 86 p 3

[Article by Xu Liangdong [1776 5328 2767] and Sun Guoqi [1327 0948 2759]: "Equitable Readjustment of Price Parities Between Grain and Cash Crops Is the Key to Stabilization of Grain Production"]

[Text] Very great development has taken place in the province's agricultural production in recent years, and development has been even faster in grain production. In 1984, the province's gross output of grain was 20.1 billion jin for an all-time high. However, as a result of parity prices between grain and cash crops not being entirely equitable, rational readjustment of the structure of rural industry and steady development of grain production have been adversely affected. Poor performance in grain production will have an adverse effect in turn on the people's livelihood and all aspects of economic construction.

Inequities in price parities between grain and cash crops today are manifested largely in the gap between earnings from production of grain crops versus cash crops. The growing of grain is not as profitable as the growing of cash crops.

A survey shows that net output value per mu figured in terms of list procurement prices is four times higher for flue-cured tobacco than for grain, three times higher for sugarcane, and three times higher for jute. Net earnings per mu are five times higher for cash crops than for grain, including more than eight times higher for flue-cured tobacco and approximately five times higher for sugarcane and jute. In addition, award sales of grain are granted for the growing of most cash crops, and benefits are gained on the difference between list and market price in the purchase of chemical fertilizer. There are also other subsidies or repayment of profits for certain cash crops. Large scale cash crop growing areas have an advantage in producing high yields at low cost, making earnings even higher than from the growing of grain. The growing of grain crops is not as profitable as the growing of cash crops in terms of benefits from farmland utilization, from cash return on labor, or from return on investment. Grain production is in a disadvantageous position. For this reason, readjustment of the rural industrial structure requires extremely close attention to grain production. But the key problem is the need for equitable readjustment of procurement parity prices between grain and cash crops. Application of such economic methods can be more effective than any other administrative or compulsory measure.

Procurement price parities for farm products reflect proportional relationships among magnitudes of value for various farm products. Since production costs are the basis for price, cost parities for different farm products generally reflect the proportional relationship of magnitudes of value for farm products. I believe that cost parities among farm products may serve as important standards for judging whether current procurement parities for various farm products are equitable. This judgment may then serve as a basis for further analysis of earnings from the production of different crops and the status of the relationship between supply and demand, thereby determining equitable parity price policies and properly readjusting the inequitable price parities that currently exist between grain and cash crops. In principle, the limit for equitable price parities between cash crops and grain is that they should not exceed cost parities. This is because maintenance of cost parities means maintenance of corresponding cash earnings rates.

Serious attention to grain production requires stabilizing the grainfield area. Insuring steady increase in grain output requires not only equitable readjustment of procurement parities between grain and cash crops, but also the bolstering of plan guidance and necessary administrative intervention, the handing down of norms for growing areas for major farm products and for purchases, and the concluding of procurement agreements. Multiple actions in all regards should be taken to ameliorate the paradox between the growing of grain and the growing of cash crops.

The following economic actions may be taken on prices over the near term:

1. Change in the payment of an increased price for procurement of grain in excess of base figures, universally instituting a fixed proportional increased price, appropriately increasing earnings of grain growing peasants, and stirring peasant enthusiasm for producing more grain. Naturally, such a goal of raising grain prices has to be gradually carried out as national financial and material resources permit.

2. Prices are high and profits are large for some cash crops. Ill-advised expansion of growing areas has taken place as a result and there is a relative glut of products. Prices should be lowered or else agreements should be concluded for plan procurement, with procurement outside of the plan made at a lower price.

3. Prices of grain rations supplied to cash crop growing areas should be raised so that procurement and sale prices are the same, the "inversion" situation that exists being abolished.

4. Revamp or eradicate award sales of goods for cash crops, price subsidies, and return of profits, and foster and encourage grain production.

9432
CSO: 4007/377

PROGRAM OUTLINED FOR IMPROVING TOBACCO SALES

Kunming YUNNAN RIBAO in Chinese 28 Mar 86 p 3

[Article by Li Liangsheng [2621 5328 3932]: "Devote Serious Attention to the Study of Yunnan's Flue-Cured Tobacco Development Strategy"]

[Text] Study of Yunnan's Flue-Cured Tobacco Development Strategy Is an Objective Necessity for Yunnan Province's Socio-Economic Development.

Flue-cured tobacco and its processing is an important source of revenue for the province's treasury that holds a decisive position in Yunnan's economy. Development of Yunnan Province's flue-cured tobacco production has been very erratic in recent years, with numerous ups and downs that have directly had an adverse effect on development of Yunnan's economy and society. This has also adversely affected coordinated development of grain and cash crops in readjustment of the structure of rural industry. Consequently, study of a development strategy for Yunnan's flue-cured tobacco has become an objective necessity in Yunnan's social and economic development.

Yunnan's flue-cured tobacco growing area covers 62 counties in 9 prefectures, autonomous prefectures, and municipalities. In 1984, the flue-cured tobacco growing area occupied 1.68 million mu and output of flue-cured tobacco was 5.5 million dan. Since Yunnan's flue-cured tobacco is of excellent quality, not only does it supply raw material for the province's cigarette production and for export, but it also supplies tobacco for blending in cigarettes made by 84 cigarette plants in 22 provinces, municipalities, and districts throughout the country. Flue-cured tobacco is an important economic mainstay in development of Yunnan's economy. Although the flue-cured tobacco growing area amounted to only 2.8 percent of the total growing area of the province in 1984, its output value accounted for 11 percent of the gross output value of the province's farming industry. Income derived from the growing of flue-cured tobacco is also higher than from most other crops. In some cases, earnings from the growing of flue-cured tobacco may amount to between 700 and 800 yuan per mu, and earnings are generally around 400 yuan per mu. Flue-cured tobacco has become a main production avenue whereby the masses become rich. Development of flue-cured tobacco production also promotes development of the tobacco industry. Output value of the province's tobacco leaf re-curing and cigarette manufacturing industry amounts to approximately 30 percent of the output value of the province's light industry and 15 percent of gross industrial output value. Since flue-cured tobacco and cigarettes are commodities on which the state collects taxes, in recent years, industrial and commercial tax revenues from flue-cured tobacco and cigarettes have amounted to 50 percent of the province's gross financial income. These revenues have provided large amounts of funds for expansion of Yunnan's industrial and agricultural reproduction and for improving the people's standard of living. Nevertheless, in recent years, Yunnan Province's flue-cured tobacco production has fluctuated greatly in its development. During the past 3 years, flue-cured tobacco production has both fallen and risen several hundredfold, and this has been extremely disadvantageous for development of Yunnan's economy. In addition, as a result of ill-advised development and neglect of improvements in quality, the problem of a decline in flue-cured tobacco quality has become a prominent one in recent years that has caused large amounts of low-quality flue-cured tobacco to be produced and slack sales of cigarettes that have accumulated in inventory. In addition, as a result of the sudden ups and downs in the single category of flue-cured tobacco production, coordinated development of the internal structure of the farming industry has inevitably been affected in readjustment of the structure of rural industry. Since flue-cured tobacco is of crucial importance to the province's socio-economic development, a special study of a development strategy for it is necessary.

Study of a Development Strategy for Yunnan's Flue-cured Tobacco Must Be Premised on Market Demand.

Flue-cured tobacco production is commodity-type production for a singular use, which is to provide a raw material for cigarette production. Speed of development of its production is strictly controlled by market consumption; therefore, the theoretical problem in studying a strategy for development of Yunnan's flue-cured tobacco is to study the relationship between flue-cured tobacco production and consumption, finding the dynamic patterns between them. If the objective dynamic patterns of the market are departed from, and one proceeds solely from the partial benefits flue-cured tobacco provides as a commodity from which the state derives high tax revenues in increasing local financial revenues, and in increasing peasants' earnings, one might easily overlook market demand, form an exclusive concept of production, and take ill-advised actions that will inevitably damage the national interest and the peasants' interests. Consequently, any study for formulating a development strategy for Yunnan flue-cured tobacco must center on the market, a diligent study of the supply and demand situation in China's flue-cured tobacco market as well as the market for Yunnan flue-cured tobacco at home and abroad.

Flue-cured tobacco output has grown very quickly in recent years, particularly following the state's decision in 1981 to increase the procurement price for flue-cured tobacco--when price regulations stimulated flue-cured tobacco production resulting in conspicuously greater production than sales of flue-cured tobacco. In 1982, a total of 34.44 million dan of flue-cured tobacco was purchased throughout the country, creating the accumulation in inventory of more than 23 million dan of flue-cured tobacco. As a result, during 1983 and 1985, the state rigorously controlled the flue-cured tobacco growing area; nevertheless flue-cured tobacco continued to accumulate in inventory throughout the country. In 1985 the tendency toward ill-advised expansion of the growing of flue-cured tobacco became fairly serious, and the excess of production over sales became even more pronounced. China's exports of flue-cured tobacco and cigarettes comes to only between 3 and 5 percent of national output in most years; most of the market for flue-cured tobacco and cigarettes is inside the country.

Acting on the basis of domestic and foreign market demand, in 1985 the national plan called for Yunnan to produce 6 million dan of flue-cured tobacco, 5.89 million dan of which it purchased, basically maintaining a balance between production and sales. At the same time, in order to control output of flue-cured tobacco by all tobacco-producing provinces and regions, a clear-cut ruling was made that the procurement price that would be paid for all flue-cured tobacco production that exceeded the state plan by 15 percent or more would drop by 15 percent. Despite this ruling, during 1985 flue-cured tobacco production in Yunnan Province shot up, output reaching 10 million dan. Peasants lost income on the amounts in excess of the plan not only because of the drop in procurement price, but also because they had to find markets for it themselves. In a situation throughout the country of flue-cured tobacco production begin greater than sales, selling flue-cured tobacco became very difficult, and it is expected that Yunnan Province will accumulate approximately 3.4 million dan in inventory.

This shows that any ill-advised action in the production of flue-cured tobacco can cause huge losses for Yunnan's economic development.

Some Ideas About Strategic Goals in Development of Yunnan Flue-cured Tobacco

The following ideas are proposed with regard to near-term and long-term strategic development goals on the basis of the position and the tendency toward change for Yunnan flue-cured tobacco in domestic and foreign markets:

Near-term goals. Using nationwide cigarette consumption of 21.25 million cases in 1984 as a basis for calculations, the country needs to produce 28 million dan of flue-cured tobacco. On the basis of an average annual increase in cigarette consumption of 1.725 cases for the whole country from 1982 through 1984, as the people's standard of living rises, cigarette consumption after 1985 will also steadily rise. Each year cigarette consumption will be slightly higher than the average for the past 3 years. At a rate of increase of 1.8 million cases per year, by 1990 the country will have to produce 32.05 million cases. When foreign exports and loses are added in, the country will have to produce approximately 42 million dan of flue-cured tobacco. Figured in terms of the proportion for each of the country's three major cigarette producing areas, Yunnan's flue-cured tobacco production will have to be held at 9.8 million dan. Flue-cured tobacco production for each year from 1985 through 1999 should use the 5.5 million dan of 1984 as a basis for annual incremental increases of 720,000 dan. Maintenance of this speed of development will require going from the 1.68 million mu flue-cured tobacco growing area of 1984 to expand growing by an average of 220,000 mu per year. In view of the relatively small farming area in Yunnan Province, this will help keep the grain crop growing area basically stable and continue to increase the gross output of grain. It will also help coordinated development among cash crops.

Long-term goals. As population increases and as consumption rises, by the year 2000 the country will have to produce approximately 68 million dan of flue-cured tobacco if it is to maintain a balance between supply and demand. On the basis of national development goals, the growing of flue-cured tobacco in Yunnan Province will have to be increased to approximately 15.8 million dan. Using 9.8 million dan as a basis, in every year for the 10 years after 1990 an increase of 600,000 dan will be required. Such a quantitative analysis is based mostly on market supply and demand relationships.

We believe that in order to realize Yunnan Province's flue-cured tobacco strategic development goals, the guiding polices for development of flue-cured tobacco in Yunnan should be as follows: on the basis of market demand, maintenance of quality first, selective growing areas, and steady development.

Maintenance of quality first is a major policy in Yunnan Province's flue-cured tobacco development strategy. In order to strengthen Yunnan's competitive position in flue-cured tobacco markets, victory must be won through quality, with the proportion of higher and medium grade tobacco increased. By 1999, the percentage of premium quality tobacco should be increased from the 5.58 percent of 1984 to 8 percent, and the percentage of medium quality tobacco should be increased from 59.12 percent to 62 percent, premium and medium quality tobacco together accounting for 70 percent of the total. By 2000, premium and medium quality tobacco should amount to 80 percent of the total in order to keep up with the levels of other major tobacco countries in the world producing the same kind of tobacco.

Maintenance of quality first is an objective necessity in both domestic and foreign markets today. Because of limitations on the amount that domestic and foreign markets can take, over the near term there can be no greater increase in the amount of flue-cured tobacco that Yunnan produces. As far as quality is concerned, however, throughout all of China and in the world as a whole, production of premium and medium quality tobacco is conspicuously unable to keep up with sales. In order to make the most of Yunnan's advantage in the production of flue-cured tobacco, insure that quality comes first, and use sales to spur production, the following policies should be adopted now:

First, selective growing areas. It is necessary to select the optimum natural conditions and the areas possessing pre-eminent skills for priority development to make the most of Yunnan's ability to produce flue-cured tobacco, while at the same time concentrating and selectively building production bases, developing in the direction of specialization, regionalization and intensive operations. The record in the growing of tobacco shows that tobacco growing should be concentrated in the following 44 key counties: Yuxi, Jiangchuan, Chengjiang, Tonghai, Huaning, Yimen, Eshan, Xinping, Qujing, Zhanyi, Malong, Xuanwei, Fuyuan, Luoping, Shizong, Luliang, Yiliang, Lu'nan, Xundian, Gaoming, Huize, Cnuxiong, Mouding, Nanhua, Dayao, Wuding, Luquan, Lufeng, Zhaotong, Ludian, Qiaojia, Yanjin, Daguan, Zhenxiong, Yiliang, Weixin, Jianshui, Shibing, Mile, Luxi, Xiangyun and Midu. As for Binchuan County, which has developed fairly rapidly in 1986, whether or not it ranks as a superior quality growing area will depend on an evaluation of the inherent quality of its flue-cured tobacco. The development of other counties as tobacco growing areas will have to be similarly regulated. This is particularly true of places that lack fuel or are cut off from transportation, which should shift to the growing of other crops in order to maintain the growing of flue-cured tobacco in Yunnan in places having high quality and high yield environmental conditions.

Second, in order to maintain the superior quality and high yields of Yunnan's flue-cured tobacco, commensurate policy actions will have to be formulated. Flue-cured tobacco is a Category II agricultural product for state centralized procurement and centralized marketing, and the speed of its development has to be under the guidance of state plans. Plans for the whole province have to be based strictly on state plans and development objectives for formulation of annual plans. Procurement units have to act strictly in accordance with state-set grade standards in the purchase of flue-cured tobacco within plans. For portions that exceed plans, a price that is 15 percent the procurement price is used. In addition, all taxes on flue-cured tobacco in excess of the plan that have been collected by the county are turned over to the provincial treasury. For plans handed down to each county by the province, procurement contracts have to be signed with producers.

Third is establishment of a fine variety supply system that centrally supplies seeds to insure that fine flue-cured tobacco is produced throughout the province. As the scientific research system improves, an umbrella organization for flue-cured tobacco production throughout the province should be established for scientific research, production, and management. A fine seed supply should be the central responsibility of flue-cured tobacco managerial units. There should be a strict inspection system to insure the purity, cleanliness, and sprouting rate of all fine seeds that are supplies to meet nationally set standards.

Fourth, in order to advance the development of flue-cured tobacco production, readjustment and improvement is required in the realm of cigarette production to improve the kinds of cigarettes that are available, developing cigarettes with a multiplicity of flavors, and cigarettes that have curative effects. During the last few years in particular, there has been a welter of Yunnan cigarette brands that have hurt the reputation of "Yunnan tobacco." Today 5 cigarette factories in the province turn out a total of 53 different brands of cigarettes. It is suggested that units responsible for commercial and industrial administration carry out a complete survey and straightening out of cigarette brands, making a major effort to reduce the number of brands in order to insure the reputation of 16 department and province level fine quality product brands such as "Yunyan, Hongshancha, Hongtashan, and Dazhongjiu." At the same time, it is necessary constantly to improve cigarette quality, to intensify technical improvements, and to overcome current quality problems of stiff, empty, or loose cigarettes. Cigarette specifications should be diverse with attention given to the production of a proper number of long, thin cigarettes. Quality of packaging should be improved, with efforts made to make packaging pleasing to the eye and tasteful, developing in the direction of luxuriousness and elegance.

9432
CSO:4007/377

YUNNAN

BRIEFS

RURAL SAVINGS--In the first quarter of this year, rural savings in Yunnan continued to increase. As of the end of March, deposits surpassed more than 1.25 billion yuan, an increase of 55,260,000 yuan over the end of 1985. The average monthly increase was 18,420,000 yuan. [Excerpt] [Kunming YUNNAN RIBAO in Chinese 26 Apr 86 p 1]

CSO: 4007/422

END

JPRS-CAG-86-025

24 JUNE 1986

China Report

AGRICULTURE

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-025

24 JUNE 1986

CHINA REPORT

AGRICULTURE

CONTENTS

PEOPLE'S REPUBLIC OF CHINA

NATIONAL

Qian Zhengying on Promotion of Water Conservancy Projects
(Chen Dai'an; NONGMIN RIBAO, 6 Feb 86) 1

Government To Intensify Training of Rural Youth
(Zhu Ling; CHINA DAILY, 24 May 86) 5

Strengthening Farm Mechanization Services Stressed
(Xiao Feng; NONGYE JIXIE, No 1, 18 Jan 86) 7

Use of Jute in Paper Making Seen Possible
(Lang Xugang; NONGMIN RIBAO, 6 Feb 86) 10

Growth in Livestock Industry Urged
(Liu Shaobo; ZHONGGUO XU MU ZAZHI, No 1, 5 Feb 86) 12

Forestry Official Reports More Trees Planted
(XINHUA, 31 May 86) 16

How To Improve State Farm Financial Management
(CAIZHENG, No 2, 8 Feb 86) 18

Reform of Agricultural Tax System Discussed
(Li Bingkun, Tang Renjian; NONGYE JINGJI WENTI, No 3,
23 Mar 86) 23

Commentary: Tea Quality Must Improve for Export
(Xia Yin; NONGMIN RIBAO, 25 Feb 86) 30

Briefs
Peasants Sell More Sideline Products 32
New Rice-Growing Method 32
New Wheat, Corn Planting Techniques 32
Provincial Economic Figures 33
Cane Sugar Output Increases 33
Livestock Production Centers 33
Water, Soil Conservation 33
Fast Pig Raising 33

TRANSPROVINCIAL AFFAIRS

Scientists, Technicians Begin Survey of Loess Plateau Area
(XINHUA, 31 May 86) 34

Scientists To Survey Qinghai-Tibet Plateau
(XINHUA, 9 Jun 86) 35

ANHUI

Forestry 'Breakthrough' Sought as Tree Planting Begins
(ANHUI RIBAO, 12 Mar 86) 37

Cotton Area Production Decreases, Recovery Measures Adopted
(Xu Huandou; ANHUI RIBAO, 14 Mar 86) 40

Nonstaple Food Results, Measures Noted, Analyzed
(Peng Hua, Yuan Yalin; ANHUI RIBAO, 16 Mar 86) 42

BEIJING

Renewal Energy Powers Rural Villages in Beijing
(XINHUA, 4 Jun 86) 45

FUJIAN

Increased Grain Production Urged by Hu Ping
(FUJIAN RIBAO, 24 May 86) 47

Briefs
World Bank Loan 48

GANSU

Briefs
Living Standard in Dingxi 49

GUANGDONG

Briefs
Frozen Food Company 50
Rural Savings 50

HEBEI

Farmers Struggle Against Saline Land
(XINHUA, 3 Jun 86) 51

HEILONGJIANG

Province Produces 90 Percent of Country's Flax
(XINHUA, 26 May 86) 53

HENAN

Briefs
Water Conservancy Meeting 54
Grain Area 54

HUBEI

Reportage on Hubei Efforts To Fight Drought
(Hubei Provincial Service, 30, 31 May 86) 55

Governor Speaks at Meeting 55
Urgent Instructions Issued 56

HUNAN

Hunan Governor on Strategic Tasks of Seventh 5-Year Plan
(Hunan Provincial Service, 23 May 86) 58

Hunan Vice Governor on Fight Against Drought
(Cao Wenju; Hunan Provincial Service, 29 May 86) 60

Dolphins Return to Cleaned-Up Hunan River
(XINHUA, 23 May 86) 62

Development of Ramie Production in Province Noted
(HUNAN NONGYE, No 1, 1 Jan 86) 63

Briefs
Ramie Technology Development Center 65

JIANGSU

Decline in Jiangsu Tea Output Analyzed
(NONGMIN RIBAO, 25 Feb 86) 66

Afforestation Success Reported in Xuzhou City
(XINHUA, 2 Jun 86) 68

JIANGXI

Illegal Land Use Still Problem in Province
(Jiangxi Provincial Service, 28 May 86) 69

LIAONING

Grain Production Issues Discussed
(Yu Zhenguo; NONGYE JINGJI, No 1, 13 Feb 86) 71

NINGXIA

UN-Aided Ningxia Project Completed Early
(XINHUA, 29 May 86) 78

QINGHAI

He Kang Discusses Agricultural Development
(He Kang; NONGYE JISHU JINGJI, No 1, Jan 86) 79

Qinghai Holds First Forum on Random Occupation of Farmland
(Qinghai Provincial Service, 23 May 86) 88

SHAANXI

Reform of Fertilizer Allocation, Supply Decided
(SHAANXI RIBAO, 2 Mar 86) 89

SHANDONG

Briefs
Shandong Meeting on Grain Development 91

SHANXI

Farm Machinery Service Network Established
(NONGYE JIXIE, No 12, 18 Dec 85) 92

Fish Raising Increases in Shanxi Province
(XINHUA, 26 May 86) 94

SICHUAN

Problems in Fighting Drought Faced
(Sichuan Provincial Service, 19 May 86) 96

Disease Interferes With Extension of Rice Hybrids
(SICHUAN RIBAO, 6 Feb 86) 98

XINJIANG

Revisions Revealed in Xinjiang Seventh 5-Year Plan Report (Xinjiang Regional Service, 3 Jun 86) 100

QIAN ZHENGYING ON PROMOTION OF WATER CONSERVANCY PROJECTS

Beijing NONGMIN RIBAO in Chinese 6 Feb 86 pp 1,2

[Interview of Qian Zhengying [6929 2973 5391], Head of the Ministry of Water Resources and Electric Power by Chen Dai´an [7115 0108 1344]: "Sum Up Experience, Strive This Spring for New Gains in Construction of Water Conservancy Works"; place and date not given]

[Text] How should water conservancy work best proceed, with emphasis to be placed this spring on restoring and strengthening existing structures? This newspaper´s reporter Chen Dai´an visited Minister Qian Zhengying, of the Ministry of Water Resources and Electric Power, asking her to respond to questions.

[Question] Why has there been special emphasis placed since last winter on promoting winter and spring construction of water conservancy works? How does the situation look after one winter´s efforts?

[Answer] For many years China has had a good tradition of using the slack agricultural season in winter and spring to promote construction of water conservancy works. However, in recent years, there are some places in which the thought of agricultural services and the idea of promoting construction of water conservancy works have faded. There has been incorrect thinking that water conservancy works already are up to standard, and some have even thought that the development of agriculture does not need water conservancy. As a result, there has been a slackening in the construction of water conservancy works and in the maintenance and management of existing water conservancy projects. Some projects have gone neglected for years, and some have even been destroyed by humans. This has led to decreased effectiveness. The works are not able to perform the roles that they should. During the struggles against floods and droughts, the state of poor repair has been responsible for tremendous losses in agricultural production and financial losses for the state and the people. The Central Committee stressed at the National People´s Congress last year that the large problem of feeding and clothing a population of 1 billion people cannot be overlooked The Seventh 5-Year Plan calls for total national grain production to reach 900 billion jin by 1990. To realize this strategic objective, there must first be an increase in material inputs, gradually transforming the conditions of production. The construction of water conservancy works is an important part of this. However, the present state of conservancy works is far from adequate for the Seventh 5-Year Plan. Therefore the Rural Policy Group of the CPC Secretariat and the Ministry of Water Resources and Electric Power, beginning last winter, have resolved to firmly tackle this problem. The situation since last winter has been excellent. According to incomplete statistics, the total number of laborers exceeded 39 million, and the total volume of earth and stone moved was 1.45 billion cubic meters. This is equivalent to 1.5 times as much moved in the preceding 4 years of the Sixth 5-Year Plan. In Jilin, Hunan, Jiangsu, Guangdong, Henan, Shaanxi, and other provinces, the scale of mobilization has been comparatively broad, and the degree of labor participation, the amount of earth and stone moved, and the returns on various projects all have exceeded the levels of the same period in the previous year. In Shaanxi, from July to December of last year, more than 600,000 mu of new land was irrigated, which greatly contributed to fall seeding and winter irrigation.

[Question] What useful experiences can be drawn from the current promotion of construction of water conservancy works?

[Answer] Much experience has been gained from the current promotion of construction of water conservancy works. The main points are as follows: 1. Leaders have emphasized the program. Leaders on all levels have summed up the lessons from the experience of flood and drought prevention in recent years and have taught the masses of cadres and people to better recognize the position that water conservancy plays in agricultural production, in rural economic development, and in the structural adjustment of production. Among the conditions of agricultural production, the relationship between water conservancy and other factors in agricultural production has been made clear. This has spurred the cadres and masses to become aware of and concerned about the construction of water conservancy works. They have placed the winter repair of water conservancy works high on their agendas. Some places have also established a special headquarters to go right into the key projects, inspecting and supervising. Some district and township governments have employed a contract system for cadres, who are to discover and solve problems in a timely fashion. This has helped construction of water conservancy works in terms both of speed and of quality. 2. The main objectives in the attack have been made clear and accord with local conditions. In many places, before winter repairs began, a comprehensive survey was made of the present state of water conservancy projects, followed by analysis that faced problems, selected appropriate measures, and identified the main targets of attack. Some places implemented a responsibility system for management. Some addressed the problem of aging water conservancy works. Some removed engineering problems and hidden dangers. Others resolutely investigated and prosecuted cases of manmade destruction. And still others further improved the equipment that accompanies water conservancy projects, increasing their ability to guard against disaster and to provide returns in fully comprehensive utilization. For example, in Shaanxi, the work was based on investigation and study. First, a plan was drawn up which determined that restoration and strengthening of existing projects should be the top priority. For the restoration of the projects that had been neglected or damaged, an all-out campaign was launched to clean out and repair irrigation canals and to repair and maintain mechanical and electrical irrigation equipment. 3. Labor and funds was contributed by the masses. Many good experiences were collected regarding this aspect. In some places, labor was assigned to set segments of water conservancy works according to the size of area that derives benefit. In some places, mutual assistance was resolutely carried out, with all assisting in the construction of agricultural fields and water conservancy works. In other places, a set labor contribution was assigned for construction of water conservancy works based on each laborer. Those who did not contribute had to pay a fine. In still other places, responsibility for leveling land was assigned to households, for each household to take care of. Construction of key projects was organized by the townships and villages. As for the funds that are needed for farmland capital construction, many places have adhere to self-reliance, aside from the appropriate subsidy contributed by the state, and have collected funds from many sources, taking small portions from local finances, township and town enterprises, collectives, banks and credit cooperatives, and individuals who will benefit. 4. Improvements in the water conservancy responsibility system have been carried out at the same time as restoration work on water conservancy projects. In many places, at the same time that water conservancy works were restored, personnel were sent down to the villages, irrigation districts, well stations, and units that manage water conservancy to help them establish and perfect a responsibility system for water conservancy works. Every component is assigned to a person to take responsibility for, destruction by human is prevented, and timely irrigation is ensured.

[Question] Last winter, during the campaign for the construction of water conservancy works, what problems remained? During this spring's campaign for the construction of water conservancy works, what will be needed to address these problems?

[Answer] We have just been discussing the tremendous achievements that were achieved during last winter's construction of water conservancy works. However, many problems remain. The first problem is that development is uneven. Some places have yet to take action, and in others, although the winter repair work was carried out fairly well, they do not have a clear idea about how to carry out work this spring. A second problem is that there are shortages of funds and materials, which has affected the expansion of construction of water conservancy works. A third problem is that the final tasks left uncompleted during last winter's repair work are quite large. This situation must be changed as soon as possible. Therefore, the following requests are made of this spring's construction of water conservancy works: 1. Every level of government and professional department must continue to seize the excellent opportunity before spring planting and organize spring repairs with leadership, planning, and measured steps. All of the tasks in last winter's and this spring's construction of water conservancy works must be completed. 2. Project facilities and mechanical and electrical equipment at wells, pump stations, reservoirs, sluices, irrigation canals, and other projects should be inspected and repaired to insure irrigation for spring. 3. Inspections should be carried out before high waters come. Those sections most needing it should be repaired so that a good foundation is built for flood prevention this year. 4. Those projects completed last winter should be inspected and certified according to set standards. 5. Funds, steel, wood, cement, and other materials needed for construction of water conservancy works should be listed in a plan according to the present system of management. This is to ensure timely supply. 6. The responsibility system in water conservancy management should be conscientiously implemented. All forms of responsibility systems should be tailored to local circumstances by setting reasonable objectives, providing for a healthy system, assigning responsibilities to individuals, incorporating signed contracts, delivering promised compensation, and establishing a solid system of management and service at the grassroots level. Every project should have people in charge, so that even greater returns will be achieved.

[Question] The new year is fast approaching. Do you have any happy wishes for the cadres, masses, and S & T personnel regarding the constant struggle in the construction of water conservancy works?

[Answer] Here on the eve of a new year, I speak for the party organization in the Ministry of Water Resources and Electrical Power and send holiday regards to all of the cadres, masses, and S & T personnel on the battleline of construction of water conservancy works, and their families. I wish them a happy new year. Struggle for ever greater victories this spring in construction of water conservancy works!

12994/12781
CSO: 4007/300

GOVERNMENT TO INTENSIFY TRAINING OF RURAL YOUTH

HK240344 Beijing CHINA DAILY in English 24 May 86 p 1

[By staff reporter Zhu Ling]

[Text] China is intensifying its effort to train millions of young people in its rural areas with the intent of bringing up a new generation to bring prosperity to the countryside.

A giant plan is being mapped by the China Association of Science and Technology, the Chinese Communist Youth League and the All-China Women's Federation to raise the technical and scientific level of the rural population.

An association official disclosed to CHINA DAILY yesterday that the scheme calls for training 100 million young people during the next 5 years, giving each one or two practical new skills.

The plan is now being discussed by representatives from the three organizations in Baoding, Hebei Province. There are more than 200 million young people in the countryside, some 25 percent of the total rural population.

Under the plan, 5 per cent of the 100 million trainees are expected to be raised at the level of technicians, equal to graduates of urban upper secondary technical schools.

Emphasis at first will be on rural graduates from upper and lower middle schools, now numbering some 120 million, the official said.

The programme will be under the joint sponsorship of the association, the Chinese Communist Youth League, the All-China Women's Federation, the State Commission of Education, the State Commission of Science and Technology, and the Ministry of Agriculture, Animal Husbandry and Fishery.

China is now undergoing transition from traditional self-sufficient farming to a commodity economy using modern techniques. There is a crucial need for a large number of scientific and technical personnel to back up the fast-changing rural economy.

The effort to train them began to gain momentum 2 years ago in answer to the desire of rural people for science and technology. Scientific, youth and women's organizations have set up 13,000 technical schools and sponsored 400,000 training courses.

Over the past 6 years, 84 million rural young people have learned onr or more practical skills, according to the latest statistics.

The All-China Women's Federation reports that many rural women have joined the education campaign. In 1985 alone, 20 million rural women attended various technical courses.

Technical training has changed the lives of rural women who have become more independent and enterprising.

Most of the young rural trainees, according to the official, are now scientific farmers, technicians in rural enterprises, or engage in special side-line production.

The official said that the country's agricultural institutions of higher learning have contributed their effort to the training drive.

Last year, more than 10,000 teachers and students of agriculture colleges gave lectures and technical advice throughout the nation. More than 80,000 young farmers have received training in 110 agricultural colleges and schools.

Now, 41,000 townships, roughly 45 per cent of the total, have established science popularizing societies to satisfy the desire of young farmers for better skills. There are also 60,000 specialized research societies.

/8918
CSO: 4020/337

STRENGTHENING FARM MECHANIZATION SERVICES STRESSED

Beijing NONGYE JIXIE [FARM MACHINERY] in Chinese No 1, 18 Jan 86 pp 2-3

[Article by Vice Minister Xiao Peng [5135 7720] of the Ministry of Agriculture, Animal Husbandry, and Fisheries: "Strengthen Farm Mechanization Services and Make New Contributions to Rural Economic Development"]

[Text] Another New Year is upon us. Over the past year, the more than 1,000 S&T personnel, cadres, staff and workers in the farm machinery industry and farm machinery production--and particularly the broad mass of drivers, equipment operators, and farm machinery managers on the front line of production--have made diligent efforts toward development of the rural economy, readjustment of the structure of production, and finding a road toward a characteristically Chinese mode of farm mechanization, with great achievements. I now take the opportunity of the first 1986 issue of FARM MACHINERY to express New Year's congratulations to my comrades! May all make new contributions and achieve new successes in the coming year!

This is the first year of the Seventh 5-Year Plan. According to the requirements for accelerating the transformation of farm technology set forth in the seventh set of 5-year social and economic plans drafted by the central leadership of the state, a full role should be developed for farm mechanization in bringing about readjustment of the structure of rural production and development of commodity production. Farm machinery of all sorts sorely needed in the countryside should be appropriately developed. Power equipment which has outlived its usefulness should be gradually replaced. All levels of farm mechanization managing departments should bring together production requirements and take a firm grasp on farm mechanization services, make organization and coordination between these services and assurance that grain production will continue to grow in a stable fashion their priority, concentrate training for farm mechanics together with spare parts supply and repair services, and improve the completion rate for farm machinery. At the same time, new farm mechanization techniques and programs sorely needed for rural commodity production should be affirmatively developed, along with improved cropping techniques, technological transformation of farm equipment and establishment of a sound system for popularizing farm equipment technology. This will strengthen management over supervision and coordination of farm machinery technology at the macroeconomic level.

China's rural economy is now beginning to turn toward specialization, socialization, and modernization. The status of social services in developing a commodity economy is more evident every day. Social services for farm mechanization are an important part of rural social services as a whole, and an indispensable link in socialized rural production. In order to meet the need to readjust the structure of rural production and develop a commodity economy and to promote stable development of production on the farm and in forestry, fishing, and animal husbandry, farm mechanization services msut be further strengthened.

I. Establish Sound Rural Farm Mechanization Service Institutions:

At the present time, China's villages have more than 39,000 farm machinery service stations, more than 48,000 service personnel, more than 19,000 specialized farm machinery service companies, and over 45,000 farm equipment repair stations. Specialized farm machinery service households have grown to over 930,000 while specialized repair households number over 30,000. A farm machinery service network is beginning to form. But growth has not been balanced, in some provinces, the number of farm machinery service stations in townships and towns is less than 20 percent of the total number of such areas. At the grassroots level things are even weaker. Therefore, organization of such services must be strengthened at the rural level. Such service organizations as township and town farm machinery service stations, rural farm machinery service brigades, specialized farm machinery service companies, and farm machinery service cooperatives and associations run by equipment operators themselves now in existence must be earnestly supported to help them to become sounder and to grow, so that they can play the role they should. Places without such organizations should follow the principle of the state, collective, and individuals all receiving benefit, make rural townships their priority, adopt diversified formats and methods, and adjust to local conditions to establish farm machinery service organizations at the town and rural level and coordinate the organization of mechanized services.

II. Preserving the Autonomy of Farm Machinery Service Organizations Is a Major Condition for Increasing Vitality and Improving Services:

At the present time, there are no hard and fast guarantees of autonomy for collectively run farm machinery service stations. Reform in lines of authority has been overlooked. Changes in the direction of services, selection of personnel, allocation of funds and equipment, and occupation of premises have all had an impact on enthusiasm for improving farm machinery services. This has not been helpful toward the growth of agricultural mechanization. Thus, their autonomy must be preserved and autonomous operations implemented, with democratic management, independent accounting, and assumption of the risk for profits and losses. No unit or individual should interfere with their legitimate economic operations and activities, take away their workers, funds, or equipment, or occupy their premises. The enterprises and operations they undertake should be in accordance with the principle of "whoever undertakes an enterprise and manages it should glean the profits." Their autonomy must be guaranteed, and their lines of authority should not be meddled with.

III. Rural Farm Machinery Service Organizatoins in All Locations Should Continue To Implement the Policy of "Focus on Agriculture, and Comprehensive Operations":

"Focus on Agriculture" means to start from agriculture, look to the countryside, serve the farmer, and provide diversified services for farm, forest, livestock, sideline, and fishery production, for farm mechanization, for rural construction, and for the farmer's livelihood. Currently, stress on grain production services should come first, with an emphasis on field mechanization, to ensure the continued stable growth of grain production. "Comprehensive operations" means further deregulation and revitalization premised upon completion of the work of mechanizing services and based upon the needs, financial and material resources, technical conditions, giving priority to growth of mechanization and to service projects for production of rural commodities, undertaking all kinds of enterprises and developmental projects, upgrading economic efficiency, and strengthening real ability. This policy must be thoroughly understood, and attention must not be given merely to operations while ignoring the track agricultural services should be following.

IV. Further Strengthen Management of Farm Mechanization:

Management of farm mechanization is the function of government administration at all levels. With the situation being that operation of most farm machinery is dispersed, strengthening of management becomes particularly important. At the present time, management bodies for rural township mechanization generally takes one of two forms. First, a minority of locales have set up farm machinery management stations (or specialized farm machinery management personnel) as functional parts of local government. In most places there is no such management station; rather, the farm machinery service station assumes the function of administrative management at the rural township level. From experience in both these situations, it appears that both methods are feasible. Still, no matter which form is adopted, management and service must be interrelated. Control over mechanized services should be strengthened. This will spur their growth and, through such services, the work of administrative management will be further strengthened.

We must reform, innovate, move in a broader manner and forward, be realistic, and do things in a more substantial way, guided by the spirit of the National CPC Congress to bring the work of farm mechanization services to a higher level in the new year.

12303/12947
CSO: 4007/373

USE OF JUTE IN PAPER MAKING SEEN POSSIBLE

Beijing NONGMIN RIBAO in Chinese 6 Feb 86 p 2

[Article by Lang Xugang [6745 4958 4854]: "Bright Future for Process that Uses Hemp, Jute To Make Paper"]

[Text] In 1985, the total area in China planted in hemp and jute more than doubled that of 1984, as did yields. This was the year in which the area planted in hemp and jute was the largest, total production the largest, and expansion the fastest since 1949.

In China, the production of hemp and jute fibers primarily supplies the raw material for weaving wrapping cloth and gunnysacks. According to market estimates, between 1985 and 1986, China's demand for hemp and jute will be 31 to 35 million dan. Of this, 24 to 26 million dan will be used for woven products and this demand already has been met. This year there cannot be a large increase. Consumer demand for products will be 3.5 to 4 million dan, and miscellaneous other uses, 2.5 to 3.1 million dan. Last year there was a surplus of approximately 20 million dan. There is urgent need to open new markets, otherwise surpluses will accumulate, causing losses for both the state and the peasants who produce hemp and jute.

According to foreign reports, there has been success in using whole-stalk jute as a substitute for wood pulp in making paper. The length of single strands of cells in whole-stalk jute are on average 1.34 mm long, which is shorter than those of coniferous trees and longer than those of decidious trees. Paper pulp made by boiling and bleaching whole-stalk jute has the same qualities as pulp made from coniferous trees, except the jute breaks apart slightly less easily. The jute pulp is better than that made from decidious trees. At present, the United States, Sri Lanka, Thailand, and other countries have already begun using it in production. In 1984, the Hemp Research Institute of China's Academy of Agricultural Sciences and the Hunan Paper Research Institute collaborated in experimental production of whole-stalk jute pulp using a sulphate process. The rate of unprocessed pulp obtained was 50.7 percent, and the rate of bleached pulp obtained was 45.5 percent. The pulp was stronger than all other fibers obtained from grasses and decidious wood pulp, and approached the strength of coniferous wood pulp. It could be used for making stationery and cardboard. In 1985, experiments in the production of cardboard were successful. This has opened a new path for the expanded production of China's jute.

In China, the area of forest cover is small. The growth cycle for trees is also long, about 30 years. It will not be possible to cut down large quantities of trees to use as raw materials in paper production. Jute is an annual crop. It is harvested the same year that it is planted. The cycle is short and results are evident quickly. Used in paper production, the economic returns are good. Therefore, the use of whole-stalk jute in paper production is important not only in helping solve the problem of surplus production of jute, it also has long-term strategic importance.

Using whole-stalk jute in paper production can save large quantities of foreign exchange. China must import 700,000 tons of wood pulp annually, equivalent in value to $800 million. In the year 2000, if paper use quadruples, then annual wood pulp imports will be 2.8 million tons, equivalent to $1.33 billion in current prices. If one-half of production could instead use whole-stalk jute, China would annually save $670 million in foreign exchange.

Using whole-stalk jute in paper production can help increase peasant income. According to the rate of utilization of jute in pulp production, annual production of 1.4 million tons of paper pulp made from whole-stalk jute requires planting jute on only 4 million mu. Assuming a low price of 150 yuan earned per ton, this would mean peasants who raise jute would increase their incomes by 600 million yuan.

Using whole-stalk jute in paper production can also lower the costs of industrial production. Research has proven that cardboard made with 6 percent of jute pulp is equal in quality to cardboard made with 30 percent of wood pulp, and reduces the cost 285 yuan per ton. Used in producing stationery, it can lower the cost 190 yuan per ton.

China's expanded use of whole-stalk jute in paper production has a unique advantage--the raw materials are abundant. Jute is very adaptable. It grows well whether planted in the hilly districts of the south or the semiarid districts of the north. It stands up to floods, salinity, and requires little in the way of soil conditions. In conclusion, there is much land in China that is suitable for expanded planting of jute. By simply carrying out reasonable planning and building paper production centers, it is completely sufficient to supply the needed raw materials.

12994/12951
CSO: 4007/301

GROWTH IN LIVESTOCK INDUSTRY URGED

Tianjin ZHONGGUO XU MU ZAZHI [CHINESE JOURNAL OF ANIMAL SCIENCE] in Chinese No 1, 5 Feb 86 pp 3-4

[Article by Liu Shaobo [0491 1421 0130], Beijing Agricultural University "Adhere to the Correct Direction And Promote Growth In China's Livestock Industry"]

[Text] China is one of the world's major grain countries. Annual production exceeds 400 million tons, first in the world. A significant amount of grain is used as feed. As grain production increases yearly, human grain consumption will drop, and feed used for raising livestock will increase. China currently uses approximately 70 to 75 million tons of grain for feed. It exceeds 100 million tons when bran cakes and chaff dregs and wastes are added. It is more than double the gross grain production of Canada or France, and half the gross grain production of the Soviet Union. China also has 3.3 billion mu grasslands, and in the south 1 billion mu of grassy mountains. All are the foundation for expanding animal husbandry. It can be seen that there are substantial feed resources for China's livestock industry.

China is also one of the world's richest countries in domestic animal varieties. Not only are there world-renown high-yield varieties, there are also many fine local varieties that are highly adaptive and productive. Along with the long history and rich experience in livestock raising of China's many peasant herders, fine conditions are present for expanding the livestock industry.

China's total livestock yield is quite impressive. Still, the per capita quantity is quite limited, only 13.5 kg of meat per person. Only 11 percent of the protein comes from animals, far behind that of advanced countries. It can be seen that China will have a vast market and demand for livestock products. As the economy develops and the buying power of the people grows, the livestock industry must expand steadily.

From Now on the Direction of China's Livestock Industry Development Will Be:

1. Raising Efficiency Will Be the Strategy for Long-term Growth

China currently has 590 million head of livestock, making up 15 percent of the world total (3.88 billion head). Meat production (14 million tons) makes up only 9 percent of world production. Milk production accounts for only .04 percent of dairy production. China's livestock population is first in the world, twice that of the United States and 40 percent more than the Soviet Union. However, meat production is actually only a bit more than half that of the United States (55 percent) and 86 percent that of the Soviet Union. It can be seen that the efficiency of China's livestock industry is too low.

China's total meat output is only behind the United States and the Soviet Union, third place in the world. It is twice that of either France or the FRG. It is equivalent to 4.5-fold that of England. Its place in the world is decisive. Nevertheless, production efficiency is 40 percent below the world standard, and even further behind countries with modernized livestock industries. Average meat production per head for in pen livestock is 28 kg, but 123 kg in the United States and 465 kg in the Soviet Union. All were grain-fed livestock, but meat produced differed several fold. It is clear that the strategy of raising production efficiency for long-term growth is correct.

2. Advocating Intensified Grain Feeding Will Be the Key to Raising Efficiency.

Since the 3d Plenum of the 11th CPC Central Committee, meat output rose 2.3-fold the 1970's (approximately 6 million tons), but the livestock population has not increased. Though it has increased, total feed expended is not nearly of the same magnitude. Impressive results seem to have been achieved by adjusting and improving the extent of intensification.

Currently, China's livestock productivity is still quite low. Breeding rates per cow are less than 40 percent, and the rate of increase for young livestock is less than 20 percent. In pen pork, rates are less than 70 percent. Lean meat rates are below 40 percent. It is clear that there still is potential to relying on intensified grain feeding, and this direction should be adhered to for a long period.

3. The Livestock Industry's Direction Are Professionalization, Socialization, and Modernization.

After the 3d Plenum of the 11th CPC Central Committee, and the shaking off of "leftist" shackles, specialized household production expanded, currently more than 5 million households, making up approximately 3 percent of peasant households. Specialized households are a phase experienced by all the world's countries in developing the livestock industry, and is a vital form of production organization in China. Although numbers are not now large, it will become a mainstay of China's livestock products.

Specialized households are commodity producers. Product ratios are several times, and even several tens of times, higher than when livestock are raised as a sideline. A specialized household does not count as major if it produces 50 heads of fat pigs in 1 year. Its quantity of commodity products is 60 times that of sideline pig raisers. The number of specialized households Beijing relies on does not rate as large, but they supply about half of the commodity eggs. The Tianjin fresh-egg market is basically dominated by specialized households. It is clear that, though the number of specialized households is not large, the quantity of products is not small.

Specialized households make their living by raising livestock, and because of this calculate closely at each point, do their best to improve facilities, raise technology, select improved varieties, and expand commercial efficiency. It can be seen that specialization is an important road for adopting advanced technology and improving the technological structure.

After marketplace liberalization, high quality and good prices have been increasingly accepted by the masses. Livestock products of different quality will get different responses. To raise profits, specialized households all take the lead in accepting the market's demands in quality. It is to the consumer's advantage to have the benefit of this rich socialist marketplace which satisfies market shortages in lean pork, brown-shelled eggs, and quality beef and mutton.

4. Expanding Livestock-Processing Industries, Developing Livestock Products, and Raising the Commodity Efficiency of the Livestock-Raising Industry Is a Way to Further Expand the Livestock Industry

Livestock production is a complete system, starting with natural resources, passing through domestic livestock production, gain going through transport, storage, and processing to become livestock food products or articles for use and market sale. An obstacle at any juncture of the production system can hinder, even stop, production. Feed shortages will not do. In the same way, lack of a market or buying power will obstruct the expansion of livestock production. For this reason, it is necessary to start from the side of the production system, expand the livestock-processing industry, study new products, open up the marketplace, expand sales volume, and place the livestock industry structure on solid footing. China's livestock processing is weak, and product variety overly plain. It is another cause of purchase and marketing difficulties.

Processed livestock products are important in developed countries, taking up approximately 65 percent of all capital in the production system. The value of the original livestock material and production can be increased several fold by adding value through repeated processing. It is clear that this is exactly the road that must be traveled in China's peasant villages. It will be difficult for peasants to prosper simply be relying on grain and livestock. Engaging in production in a complete system is equivalent to expanding and extending the original natural resources of peasants. It is only possible to realize the doubling of production value and income by repeatedly adding value through second and third industries.

5. Marshal Local Advantages and Begin Joint Production

Feed resources, livestock varieties, and special production characteristics are unequal across different locales. The production process should be completed by unifying, organizing, and exploiting all production advantages in combination. It is the special character of herding districts to have much grass but lack feed, and have bad winter and spring weather where there is little forage. Farm districts have much grain but little grass, thus forage and raising conditions are better guaranteed. Because of this, herding districts are suited to seasonal production, low costs, and good quality for raising female livestock, and produce feeder livestock. Removal in the winter to farm districts for fattening will reduce expenses for breeding and nurturing and for simple short-term fattening will increase agricultural employment in the slack season. The economic benefits are higher than for a complete system of breeding, raising, and finishing alone. If the advantages of township and town processing enterprises can be linked together for three-sided joint production, efficiency will be even better.

6. Continue Raising the Technical Structure of Livestock Raising

In livestock raising, some industries are technologically intensive. They are key links in expanding the livestock-raising industry, and require strong backing in investment and technology. Planned growth is needed; do not engage in mass movements. For example study and production of domestic animal cross-breeding, controlled breeding, and the feed industry, and in-depth processing of products can utilize the service systems and mobilize the masses to put the achievements into practice. This will bring about an even greater function for broadening the expanding of the livestock-raising industry.

/12781
CSO: 4007/348

FORESTRY OFFICIAL REPORTS MORE TREES PLANTED

OW310316 Beijing XINHUA in English 0150 GMT 31 May 86

[Text] Beijing, May 31 (XINHUA)--Peasants in China's largest plain in the north and central areas have become more active in tree planting and are going to cover with trees 80 percent of bare spaces between farm fields and 30 percent around villages before 1990, according to the Chinese Ministry of Forestry.

Now a loose tree network has been knitted to cover about 50 percent of the farmlands, said an official of the afforestation department of the ministry.

The north and central China plain includes 422 counties which have a total population of 229 million.

The afforested area of Henan, Hebei, Anhui, Shandong and Shanxi provinces, and Beijing has increased from 5.8 percent in 1983 to the current 10.8 percent, the official said.

He attributed the achievements to the correct state policies and active response of the peasants to the call for afforestation.

Local peasants suffered drought and wind for centuries largely due to the lack of trees. During the 1960's and 1970's, the pursuit of high grain output further reduced the number of trees, according to the official.

Trees began to increase in great numbers following a series of realistic policies the government declared after the "Cultural Revolution" (1966-76).

The government encourages local peasants to plant more trees by letting them obtain all the economic gains from the trees they plant along the rivers and roads and around houses in the villages.

Local peasants have been allowed to sell their own timber on the market at a price they agree with the buyers. Tree planting became a new side-line production which requires little skill, consumes less cost and adds a stable income to the family, the official said.

Provinces also mapped out overall programs for systematic afforestation and promoted regional cooperation. Government authorities offered seeds and saplings, and invested in large-scale planting.

The north Anhui plain, which used to be short of timber in the mid-1970's, supplied neighboring regions with one-third of its annual output last year.

Henan peasants discovered in the 1960's that Paulownia, a kind of tall tree with large, heart-like leaves growing after the blossoming of its flowers, most suitable for building tree networks. Their roots start growing 40 centimeters below the surface of the soil and leaves begin to grow later than other trees, thus not blocking the sunshine or leaching away the water or nutrients from the crops.

Now Henan has 400 million Paulownia trees covering more than one million hectares.

Scientists also introduced other strains, including poplar, gingko, Chinese catalpa and fir trees.

/8918
CSO: 4020/337

HOW TO IMPROVE STATE FARM FINANCIAL MANAGEMENT

Beijing CAIZHENG [FINANCE] in Chinese No 2, 8 Feb 86 pp 43-44

[Article: "Many Suggestions for Enhancing the Financial Management of State Farms"]

[Text] Following the 3rd Plenum of the 11th CPC Central Committee, state farms nationwide have implemented financial contracts, begun combined agriculture-industry-commerce management, and established family farms. Economic development has been quite rapid, and the financial situation has improved. In 1984, the gross production value reached 14.6 billion yuan, an increase of 91 percent compared to 1978. Total pofits were 780 million yuan, an increase of 880 million over the deficit in 1978 but a decrease of 320 million yuan compared to 1983. Because natural disasters were relatively severe in 1985, profits are estimated to be similar to those of last year and will not be able to recover to the level of 1983.

During the past 2 years, profits have decreased, and losses have increased Although such elements as natural disasters and inflation in the costs of production materials have played a role, the primary responsibility lies with state farm administration and industries. In the process of vitalizing the economy and expanding the autonomous rights of industry, these two groups groups have ignored overall coordination. They did not properly manage the reform of the economic structure and failed to insist upon the necessary financial system. Financial management was not strengthened, and some financial sectors relaxes their supervision and management of state farm industries. The major problems that now exist in financial management are: First, financial credits have increased tremendously. At the end of 1984, total credits were 1 billion yuan, an increase of 600 million yuan compared to 1978. Some used circulating and exchange funds, while others failed to pay workers' salaries. This has affected normal industrial production and the workers' daily lives. Second, some areas have negotiated prices for transfer of property to family farms that are too low and repayment periods that are too long. Therefore, such loans have not been repaid on time. Interest, taxes, and fees that were legally due have not been paid. State farms have assumed responsibility for these losses. Third, some reclamation areas and state farm enterprises lost control during capital construction. Loans increased very rapidly and exceeded the capability of the industries. Some areas have used industrial funds to build hotels and visitor centers, thereby causing a deficit in the final contract and large bank loans. At the end of last year, bank loans totaled as much as 3.8 billion yuan, a seven-fold increase compared to 1978. Considerable numbers of these loans were irregular. Fourth, profits have decreased during the past 2 years. In 1984, total profits from state farm industries were 30 percent lower than the previous year nationwide. Some areas have continued this decrease in 1985. In addition to such factors as natural disasters and price adjustments, the major factor has been management problems. Because some industries have not implemented the national centralized budget system, their costs, profits, and losses are not realistic. Some have included basic construction expenses among their costs, some have misstated their profits, and others have transferred one year's income to the next and even created reserves for the future.

Every year the state provides a subsidy of approximately 300 million yuan to state farm industries. About half this amount is controlled by the management sector and is not directly applied to the industries. The management direction of some industries is incorrect, and there have been problems with illegal activities and improper profits. This has caused severe economic losses.

In order to solve the above problems, all levels of the finance and state farm sectors must supervise industries in order to correct their management direction. Their budgets must be examined and their financial management must be strengthened in order to allow orderly reform of the economic structure and to stimulate production growth.

1. Implement Financial Responsibility and Strongly Emphasize the Need To Replace Deficits with Profits: When the budget and state farm management sectors implement the new budget contract method, they should apply goals for profits and losses to all industries. In this way, industry will receive its proper benefits. With the consent of the budgeting department, management may reserve some necessary funds for coordination. Funds may not be withheld by management in order to build or repair office buildings, dormitories, auditoriums, service buildings, hotels, and visitor centers. Finance and state farm departments should thoroughly investigate industries reporting losses, especially those with heavy losses. They must determine the reasons for these losses and implement appropriate corrective measures. They must actively assist them in chaning their losses to profits as rapidly as possible and gradually reduce the state's burden. According to the new regulations concerning budget contract methods, state farms experiencing temporary difficulties should receive subsidies or payments for a limited time to be sued for measures that will help them correct the situation. Unless there are extenuating circumstances, we must end these subsidies if the situation is not corrected within this time period. This will force such industries to find the will to reform, improve their management, increase their profits, monitor their profits and losses, and become responsible for their actions. Those state farms that simply meet these standards must be closed or merged.

2. Enhance Overall Management and Strictly Control the Scale of Fixed-Asset Investments and Bank Loans: With respect to the plans and scale of industrial industrial construction, especially construction organized and funded by state farms, the budget and state farm finance sectors must examine and evaluate them. Need alone is not sufficient justification without the capability. They must not decide upon an item before locating the funds. They must not consider only reproduction and ignore maintaining the regular funds for routine production. Planning for fixed-asset investments must be based upon their own capabilities and should depend primarily upon internal factors. Existing production potential should be fully utilized and reformed. The budget and state farm finance sectors must carefully examine the source and use of funds for some large basic construction and domestic matching funds provided by World Bank loans. They should also make suggestions based upon the adequacy of the funds and examine the industrial contract surplus for the amount to be used as a production reserve. They must participate in and control the size of basic construction. Industries that wish to use production reserve funds for basic construction must report their plans to the management and budget sectors. Surplus contract funds collected by management must first be approved by the budget department at the same level before they can be applied to basic construction. Industries that fail to act in accordance with their capabilities have arbitrarily expanded basic construction and built nonproductive projects, such as buildings, auditoriums, hotels, and visitors centers. This has produced difficulties in the turnover of production funds. All levels of the budget sector should encourage industry and management to immediately take corrective measures to stop or delay construction as necessary. When orders to stop construction have no effect, the budget sector should resort to economic measures such as stopping withdrawals from the treasury and halting payment of their expenses to restrain them. The budget sector can also investigate and deal with them according to state financial and economic codes. Industries must report yearly any plans to change their fixed-asset investments and obtain approval from the budget and state farm finance sectors. Funds resulting from such changes should be used mainly for technical reform or replacement of the original fixed assets. They cannot be used for new or expanded basic construction. Those responsible for application of such funds to basic construction should be identified. When bank loans are used for basic construction, one must report to and obtain approval from the budget and state farm finance sectors at the same level. This allows coordination with the banking system to significantly reduce unplanned basic construction loans, to control loan size, and prevent arbitrary action. We must strongly emphasize profit potential and repayment ability for those loans that are already part of the plan. If industries are found to be using bank loans for basic construction that has either low profit potential or poor repayment probability, we should suggest that the bank stop such loans.

3. Make a conscientious effort to clear up outstanding debts and manage contract surplus funds. All levels of the budget and state farm management sectors must help industries to thoroughly review their old debts and

decide what to do with them. If there is any contract surplus, it should first be applied to debts. The amount of debt should be checked during the evaluation of industrial budgets. After the debts are dealt with, funds for production, community welfare, awards, and a reserve may be allocated according to the ratio determined by the budget and management sectors. Use of contract surpluses must be based on the principle of using only funds on hand or "not to eat next year's grain." We must avoid using everything during bumper years and operating on credit during lean years. All industries must create reserve funds in order to use surpluses to compensate for losses. Use of production development funds should emphasize the processing and refining of agricultural and livestock products. Other areas to be emphasized include those that require less investment, produce greater profits, are labor intensive, and can reasonably use local natural resources. State farm industries located near townships should actively develop tertiary enterprises in order to further adjust the enterprise structure and increase productivity and profits.

4. Strengthen Family Farms and Improve Contract Financial Accounts and the Family Farm Financial Management System: Large numbers of family farms now exist within most state farms. In general, the family unit is used as a basis for calculation. If contracts involve groups or brigades, those units should be used for calculation. No matter which method of calculation is used, we must implement and improve different types of contract responsibility systems. A contract responsibility system must accurately identify the interests of the state, industry, and the workers. We must reject systems that overemphasize the interests of the state or industry because they overburden the workers. We must also reject systems that emphasize only the workers' interests and ignore those of the state and industry. Contract regulations specify that family farms must pay what they owe to their state farms, but, by the same token, benefits due the family farms cannot be denied by arbitrarily changing the contract because their income has increased from hard work. The pricing of state farm property leased to contractors must be based upon principles established by a combination of the budget and agriculture-livestock-fisheries departments. This income must be collected on time. After the state farms have generally applied internal contracting, they should vigorously simplify their management structure and convert to a service-type management. Surplus labor created by contracting should be used for diversification and development of secondary and tertiary enterprises. All levels of the budget and management sectors should determine whether or not industries have correctly dealt with the relationships between the state, industry, and the workers and whether or not the contract has actually been impelmented. Problems should be corrected immediately. Family farms should be helped to improve their financial management system and to continuously increase their management and profitability

5. Conscientiously Carry on Inspections of Industrial Finances and Enhance Financial Supervision of Industries: All levels of the budget and state

farm sectors must conduct a financial evaluation of industries and their managements that is based on a report approved by the State Council. This report was prepared by the Finance Department and concerns their major evaluation of the taxation and finances of state-run enterprises. If any problems are discovered during this evaluation, they should be analyzed in order to determine their cause and make timely corrections. Cases where the financial regulations have been disobeyed should be dealt with severely. Cases where the finance and management systems are incomplete, the work is superficial, or supervision and management is not adequate should be carefully examined. Suggestions should be made for improvement. All levels of the state farm and industrial sectors should enforce strict financial discipline and begin a regular auditing program. Where possible, a control structure should be rapidly established and supplied with professional controllers. Regular internal controls should be conducted.

13015/12640
CSO: 4007/329

REFORM OF AGRICULTURAL TAX SYSTEM DISCUSSED

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 3, 23 Mar 86 pp 22-26

[Article by Li Bingkun [2621 3521 0981] and Tang Renjian [0781 0088 0256] of the Policy Research Office of the Ministry of Agriculture, Animal Husbandry, and Fisheries: "Some Thoughts on Reforming the Agricultural Tax System "]

[Text]

I

At the present time, the main types of agricultural tax in use in China are the agricultural tax and surtaxes on it. The agricultural tax rate was fixed in the late fifties, and reduced to current levels in the early sixties. It has played a major role in stabilizing tax burdens on farmers and bringing in revenue for state finances. Nevertheless, as land use has been readjusted, unit yields changed, and diversified operations developed over the past few years, the current agricultural tax has become ill-suited to these changes in actual rural circumstances and the requirements of a commodity economy, and its drawbacks and flaws are becoming more and more evident.

One indication of this is that the real rate of the agricultural tax has gradually fallen as GVAO has risen. In 1957, the total rural agricultural tax paid in kind based on the unified procurement value was 2.97 billion yuan, which amounted to 5.5 percent of GVAO that year. In 1984, the figure was 3.4 billion yuan. which was a mere 1.2 percent of that year's GVAO of 280.05 billion yuan (after deducting the output value of rural industry at the village level or below.) Even when assessed according to the "inverted 3:7" ratio, 1984's total agricultural tax amounts to a mere 4.59 billion yuan, or 1.6 percent of that year's GVAO. From this, it becomes undeniable that the current agricultural tax rate is very low. Beginning in 1985, the state shifted from an agricultural tax collected in kind to one collected in cash instead, and from assessments made according to the unified procurement price of grain to a proportional "inverted 3:7" assessment. This put a stop to the unsophisticated payment-in-kind mode of payment and embedded it in commodity currency relationships, which was a great step forward in bringing about reform of the system. Still, it did nothing to alter the basic fact that China's agricultural tax rate has been chronically low.

A second indication is the extreme imbalance in agricultural tax burdens between different industries, different crops, different regions, and different economic organizations. The current tax burden is basically centered on farming, while the burdens on forestry, animal husbandry, sidelines, and fisheries are either very light or nonexistent. As for farming itself, the price of grain so much lower than that for cash crops, and yet the tax assessment per unit area is the same for both, resulting in a situation in which the real tax rate on grain is conspicously higher than that on cash crops. Within grain farming, the burden is heaviest on the old central grain-producing regions, while the burden in the newer grain centers built up in recent years is comparatively lighter. Getting down to the various agricultural economic organizations themselves, differences in production structure, location, and historical conditions have brought about the differences in tax burdens between them. The disparity between tax burdens has made the imbalances between the economic returns enjoyed by farmers more dramatic, and has had an impact on coordinating developments between the various production projects within agriculture.

An excessively low real agricultural tax rate may seem to benefit the farmer, but that is not completely the case. The fact that the shortfall is so obvious has led some departments and regions to view this as a means to increase extra-tax burdens on farmers to inappropriate levels, to carry forward all sorts of expenditures, and to make revenues from sources other than the agricultural tax much higher than from the tax itself. Surveys in various regions show that with the exception of a few rural areas in which collective areas are well developed, the average agricultural tax burdens per capita in most regions amount to anywhere from 20 to 30 yuan to as much as 60 or 70 yuan. In some places it runs as much as 100 yuan, more or less. Even at such a conservative calculation as 20 yuan per capita, the total extra-tax burden for the nations rural areas amounts to approximately 16 billion yuan, which is three- or four-fold that for the agricultural tax itself. The revenues which should be collected are not being collected; the burdens other than the tax are greatly increased; and this is the crux of the problem of disruptions in the China's rural tax relationships.

II

If we are to change the drawbacks and flaws found in the present system, it must be forceful change. There are two routes to reform. The first is to raise the agricultural tax rate overall, stress increases in those industries, crops, regions, and economic regions in which tax burdens have historically been low, and resolve the chronic situation in which the real tax is too low and glaring disparities exist. A second would involve a linkup between land-use taxes and sales taxes on products to resolve both the fundamental problems in the current agricultural tax system and also the problem of rational land use. Having compared the two, we favor the latter proposal for reform.

One unique feature of a linkup between land use and product sales taxes would be to coordinate fixed tax revenues with varying ones. Land-use tax revenues are fixed and unchanging; sales taxes fluctuate in accordance with increases and decreases in sales volumes. Thus, from the standpoint of those households which are providing primarily for themselves (including most poverty-level households), payments would consist generally of a land-use tax and not a sales tax. This would help to stabilize and even somewhat alleviate their taxes from farming. For the farm household with a high commodity rate and high farm income, over and above the land-use tax payment, there would be a sales tax on whatever amount of products were sold. This would allow for coordination of stepped increments between tax payments and income.

At first glance, this linkup would appear to be somewhat more complex than the current single agricultural tax system; but this is not entirely the case. The reason the present unitary system is so obviously simple is that is has not been changed in over 20 years, with no increase in tax for increases in production. A readjustment according to the principle that a boat rises with the water would be procedurally complicated even if fixed for 3 years, requiring a large expenditure of effort to investigate and survey the area of land tilled and decide on normal yields and crop types. But a linkup between land-use and sales taxes requires considerable effort only in the polling of land-resource areas, after which no other investigation is required over a long period, while sales taxes can be controlled at the point of sale.

The basic motivation for establishing a land-use tax is to promote rational land use. As a form of taxation intimately linked to agricultural tax revenues, the land-use tax is not one to be set up especially for farmlands; it can also be made to incorporate such nonagricultural lands as industrial lands, building lands, and those taken for transportation. Generally speaking, if land-use taxes on farm land are low, that on nonfarm land is higher, and that on farmland which is being turned to nonagricultural uses is particularly high, this makes those sectors outside of farming which are using land more aware of land resources and helps particularly in conserving farmlands, as well as providing sufficient land resources for normal agricultural development. At the same time, tax burdens on agricultural land use should be dealt with on a regional basis, with that for farmland somewhat higher than that for mountain, pasture, coastal, water surface, or wilderness lands. This will stimulate the farmer to engage in exploitative production projects, promote a change in the excessive concentration of labor force on agricultural lands as much as possible, gradually expand the scope of operations in planting on tilled lands and other production projects, and bring steady increases in China's agricultural labor production rate.

Just as with the land-use tax, a sales tax is not just one on sales of farm products; it is but one organic part of a sales tax on all products. A sales tax on a product is one assessed or paid at a fixed rate on the volume of sales. The rate is different for different products and hooked to the price of that product. A tax schedule is mainly determined by the value of the goods, the amount of the tax primarily by the margin on the product. Given the facts that price scissors exist now to a certain extent and should continue to exist for some time to come in China and that prices overall for farm products are low, the tax rate for sales of farm products should be lower than that for industrial products. We feel that the allowable amount of increase in the tax rate for farm products should average in the 3-percent range. This will facilitate subsidization of losses engendered in income from sales by farmers by the low overall levels.

Of course, given the fact that prices for all farm products are different, some may be more than this average tax rate and some less. For example, grain prices have been weak for a long time, and often appear at the very bottom of the price curve for all products. This situation will be difficult to change in the future. Thus, the sales tax on grain can be held at 2 percent. Prices for such products as cotton, oils, sugar, hemp, silkworm cocoons, bamboo, tobacco, and tea are somewhat higher; and the tax rate for them could be around 3 percent. Those with even higher prices, such as domestic animals, poultry, meats, dairy products, eggs, and fish, along with hides, rabbit wool and sheep wool can be around 4 percent; and top-priced goods such as fruits, medicines, mu'er, and flowers can have a tax rate 5 percent or more, but with a maximum not exceeding 10 percent. At the same time as this sales tax is inaugurated on farm products, the current special products tax should be immediately eliminated so as to avoid double taxation.

III

China's primary tax policy has for a long time been "to levy taxes from the people and use them for the people." From today's standpoint, this mindset is still feasible, with one major short point: taxes can be levied beyond the scope of the economic capability of the farmer to pay them, and this slogan should be qualified by the one "levy taxes at an appropriate level and use them in an appropriate way." From the standpoint of the agricultural tax system, China's chronically low tax rate needs reform, but it cannot be done too rapidly and must take into account the fact that income levels for China's farmers are still rather low. They should be instituted in steps as the farmers economic capabilities to accept them become stronger.

We feel that total revenues from a land-use tax should be generally held to the level of the current agricultural tax revenues--that is, between 4.5 and 5 billion yuan. Of this figure, levies on use of agricultural land should constitute 60 percent, or 3 billion yuan more or less. This will amount to an average land-use tax of around 2 yuan per mu. Compared to the current agricultural tax rate of 3 yuan per mu, the proposed land-use tax will constitute a reduction of sorts. This will help to alleviate the tax burden on grain planting, and especially on those areas which plant for self- or semi-self-sufficiency. Outside of arable land, land-use tax levies from such other agricultural uses as mountains, pastures, coastal, and water-surface areas should constitute 40 percent of the whole, or 2 billion yuan. Calculated on 5 billion mu, the average assessment per mu should run around 0.4 yuan. Of course, there should be policy adjustments based on local land resource conditions, as in the case of coastal and water-surface lands which should have a rate higher than mountainous lands; and mountain lands should be appropriately higher than pasture lands. Within these categories there can also be differing levels. Rates for fish ponds should be uniform with those for farmlands,but for other water surfaces used for pisciculture, it may be appropriately lower.

Tax revenues from sales of goods depend entirely on the rate selected. Once the rate is set, the total revenue is set as well. The gross sales value of all farm and sideline product purchases throughout Chinese society in 1984 amounted to 144 billion yuan. At a 3-percent average sales tax, a total of

4.32 billion yuan in sales taxes could have been collected. Some of this is a net increase over the current agricultural tax. In outline, the average tax on each member of the rural population would be around 5 yuan. If current non-tax burdens on peasants were sharply reduced, this burden would be within the capabilities of the farmer to bear.

Thus, a sum of approximately 9 billion yuan could be garnered from the combined land-use and sales taxes. Given the 1984 GVAO of 280.05 billion yuan, this amounts to about 3.2 percent, which compared to the original 1.6 percent, would signal a shift in the excessively low agricultural tax situation of some dimensions. It would consequently both avoid an increase in agricultural tax revenues which was too rapid and also achieve the goal of reforming the agricultural tax itself while helping to start smoothing out the various relationships between agricultural taxes. As the rural commodity economy develops and the amount of farm and sideline products purchased by society goes up, revenues for state finances should increase accordingly.

Looking at the lack of sense in current pricing among farm products and the sharp imbalances between incomes from different production projects, we feel that the sales taxes on different farm products should be put into place in groups, with those products for which prices have already been deregulated falling within the scope of the first group. Products for which prices have not yet been deregulated should be given a temporary reprieve to strengthen the capability of the farmer to accept them.

It must be pointed out that if farmers are to pay land-use and sales taxes, given the fact that China has many people and little land and the amount the average farmer can sell is limited, operating income taxes such as those levied on business and industry should not be employed. This will stimulate the farmer to develop commodity production. For those large farm households with extensive operating scale and rather high incomes, adjustments can be made which equalize individual income taxes between rural and urban areas. Those with higher zero bracket amounts can have them lowered. Second, once the dual land-use and sales-tax system has been implemented, the differential between revenues from the current unitary tax and the new one can be increased to a greater extent. At that point, local surtaxes should be eliminated, and revenues for local finances should become just one level in revenues for state finance through revenue sharing.

IV

Once the types of taxes and tax rates have been reformed, the question of the form of payment can be tackled. In general, payments of land-use tax should be easier. One need only grade the various types of land resources and areas of each; then taxes can be assessed and paid in accordance with the type and amount of land. The key is to have laws upon which to rely, enforce the law strictly, and search out violations of the law. But the question of how sales taxes are to be paid will not be so simple. The most salient problem is how to be sure of sales volume. This is the basis for assessing a sales tax. With most operations in China's countryside now at the household level, if the sales volume cannot be accurately assessed, it will be difficult to levy a sales tax.

A sales tax on goods implies that a tax is paid when a portion is sold. Based on this characteristic, as long as effective measures are adopted at the point of sale, this problem can be resolved. A possible solution would be use of different tax levying methods in different purchasing situations. There are basically three different types of purchasing situations in China on farm and sideline products: procurement by state-run commerce, purchase by industry or other sectors, and purchases made from farmers by nonfarmers. In 1984, state-run commerce purchases amounted to 107.03 billion yuan. Those by industry and other sectors amounted to 20.03 billion yuan; and those from farmers by nonfarmers amounted to 16.94 billion yuan. The respective proportions of the total of 144 billion yuan in total farm and byproduct purchases by society were 74.3, 13.9, and 11.8 percent. These three mutually dependent sectors form the overall arrangement of farm product and byproduct circulation in China. Although there may be some changes in these relative proportions in the future, the basic three modes should continue for a long time. Consequently, tax payment measures can be geared to these basic purchasing situations.

For purchases by state-run commercial departments and supply and sales cooperatives, one method which could be adopted would be to have them make the payments at purchase. That is to say, these organizations should be given a new function, and be entrusted to act as agent for the revenue departments in taking tax payments from the farmer on sales of farm products. The actual method would be to have the tax payment deducted from the selling price at the time of sale based on different tax schedules for different products, giving the farmer a tax receipt at the same time. This method of deducting sales taxes is not in violation of any law or regulation. On the contrary, it is backed up by such laws and regulations. In fact, to a great extent, current agricultural tax collections take this form. It is just that from now on the fact that a tax is being paid at the time of sale will become more evident.

The above method can also be considered in principle for industrial and other sectors. As long as there is a unit with a certain scale and stability of operations, it can be entrusted, as much as feasible, to collect taxes. Nevertheless, given the fact that the situation in such units is comparatively more complicated, in economic modes being either state-run or collective and in operational mode including specialization in sales, procurement, and manufacture, or all three, along with others engaged in production, processing, and sales or comprehensive operations, entrusting such units across the board to collect taxes is inadvisable. At the same time, the functions of banks should be fortified and improved to increase supervision of the operations of enterprises through monetary organs. This will help to provide the basic figures needed for accurate assessment of sales taxes on goods. Also, effective measures should be adopted to prevent deliberate underpayment or underreporting by agents.

As for that portion of purchases which are made by nonfarmers from farmers, the primary method to be adopted is the collective trade tax method to collect sales taxes on goods. Where revenue collectors are insufficient, the duties can be combined with those of industrial and commercial management departments, which can collect the sales tax at the same time as they collect the industrial and commercial administrative management fees. Alternatively, those fees can be collected at the same time as trade taxes in country fairs. Since farmers can cover their costs and make a profit both in a retail as well as a producer sense at these country fairs, the country fair trade tax should incorporate a sales-tax element as well as an operational tax on goods at the retail level. In this way, the country fair trade tax should by rights bring the two forms of taxation mentioned above together, and the country fair tax rate should equal or come close to the sum of the rates for the two taxes. This will help to promote competition between the state, collectives, and individuals under conditions of equal taxation and create the conditions necessary for the state to assure that its revenues are being collected.

Finally, the importance of linking tax payment collections and local withholdings must not be overlooked. Whether for land-use or sales taxes, and whatever the mode of collection adopted, none can proceed smoothly without the concerted efforts of local government, and particularly that at the village level. In order to motivate enthusiasm for collecting taxes at the local level and assure that land use and sales taxes are being collected at the designated rate at the designated time, there must first be reform of current tax collection management systems, which should be turned over as appropriate to local financial administration. In particular, village financial administration should be able to withhold a portion of the payments they collect, linking income to local financial administrations directly to the successful completion of the work of tax collection. We shall discuss this issue in another article.

12303/13045
CSO: 4007/369

COMMENTARY: TEA QUALITY MUST IMPROVE FOR EXPORT

Beijing NONGMIN RIBAO in Chinese 25 Feb 86 p 2

[Commentary by Xia Yin [1115 5593]: "Tea Quality Must Improve"]

[Text] The present problems of tea production that require solutions are low per-unit-area yields, declining quality and poor varieties. Improved quality, new varieties, and increased yields are the hinge upon which China's entrance into the world market depend.

High-quality teas are in short supply and the demand for lower quality has declined. Brisk sales and rising prices are the general trends in the worldwide tea markets at present. Accompanying the universal rise in the living standard of China's urban and rural population has been a steady increase in the level of tea consumption; market demand is increasing daily. Average per capita consumption reached nearly 4 liang in 1984, which is nearly double that of 1982. At the same time, supplies of the high- and medium-quality teas are in sufficient to meet demand and sales of low-grade teas have sagged, causing an accumulation of stock. The people are calling loudly for more high-quality tea. Thus, production in tea regions must develop and expand along new lines.

China's tea-growing region is vast and natural conditions are excellent. Tea plantation acreage in China accounts for 44 percent of the land used worldwide for raising tea, but China's tea output is only 16 percent of the world's total. In recent years, China tea exports have increased annually, but the volume exported accounts for a very low percentage of the worldwide trade in tea. Though green tea has long held an important position in exports, since the 1970's, quality has declined and competition has intensified. If there is not a serious effort too raise quality, there is the danger that perhaps China will be replaced by someone willing "to fill the gap." Consequently, measures must be quickly adopted, for improvement in the quality of tea is an urgent responsibility in tea production.

The development of China's tea production holds great potential. Not only is China's tea region vast, but its distribution is concentrated in the southern provinces, which facilitates management and direction of tea production. However, the vast majority of newly bred and superior varieties of tea have not yet been widely disseminated. Relevant departments must concentrate on this task and bolster the training and cultivation of tea technicians, workers, and farmers. By insisting on the principle of "success through quality," the quality of tea can be raised and the development of tea production will have a rosy future.

13030/12781
CSO: 4007/335

BRIEFS

PEASANTS SELL MORE SIDELINE PRODUCTS--Beijing, June 5 (XINHUA)--The volume of business at peasant markets selling agricultural sideline produce in 1985 reached more than 63 billion yuan, a 38.4 percent increase over the previous year's figure. According to the overseas edition of today's PEOPLE'S DAILY, the business volume of such markets in urban areas increased by 60.5 percent, reaching 12.1 billion yuan; while in the rural areas the volume of business increased by 34 percent and reached a total of 51.2 billion yuan. The DAILY, quoting the State Statistics Bureau, said trade in beef, mutton, pork, cooking oil, eggs, poultry, grain products, vegetables and aquatic products increased at the most rapid pace in the urban markets. It said there were more than 60,000 such markets across China by the end of 1985--some 8.6 percent higher than the figure for the previous year. [Text] [Beijing XINHUA in English 1352 GMT 5 Jun 86 OW] /12712

NEW RICE-GROWING METHOD--Nanjing Jun 4 (XINHUA)--Rice-producing areas in the middle and lower reaches of the Yangtze River this year are testing a new rice-growing method which avoids the necessity of transplanting the seedlings. It has been used on 1,300 hectares of rice fields in Jiangsu, Hubei and Anhui Provinces, and Shanghai. A four-horsepower diesel engine pulls a wooden seeding machine which sows the fields with good-quality seeds, which need not be transplanted. A peasant can sow more than three hectares a day, about 20 times more than using the conventional method. It is also said to be able to reduce the cost by nearly 300 yuan per hectare and increase the per-hectare output to about 9,000 kg. This method was first introduced on a farm in Jiangsu Province in the early 1980s. Experts predict that it will become an important method of growing rice in the broad rice-production bases of central China. [Text] [Beijing XINHUA in English 0104 GMT 5 Jun 86 OW] /12712

NEW WHEAT, CORN PLANTING TECHNIQUES--Beijing, May 7 (XINHUA)--Farmers in northern China can increase their output of wheat and corn by planting the corn before the wheat is harvested, the overseas edition of PEOPLE'S DAILY reported today. The corn seeds are fast growing, so that the corn ripens before it is time to plant the winter wheat. This results in a longer growing season for the wheat with increased output of both crops. Developed by local farmers, the technique was used on 306,000 hectares last year, reaping an extra 718,000 tons of grain compared with conventional ways. This year, it will be used on more than 733,000 hectares in Shandong, Hebei, Henan and Shaanxi Provinces and in the municipality of Beijing. [Text] [Beijing XINHUA in English 1224 GMT 7 May 86 OW] /12712

CSO: 4020/346

PROVINCIAL ECONOMIC FIGURES--Beijing, 24 May (XINHUA)--Today's economic news in brief: China Becomes Leading Honey Exporter--China exported 54,000 tons of honey to more than 40 countries and regions in 1985, making it the leading honey exporter in the world. The country produced 155,000 tons of honey last year, making it second in honey production to the Soviet Union.

[Excerpt] [Beijing XINHUA in English 0753 GMT 24 May 86 OW] /9738

CANE SUGAR OUTPUT INCREASES--Yunnan province in southwest China produced 462,000 tons of cane sugar during the 1985-1986 production period, a 42 percent increase over 1984-1985. With 11 processing plants being built or expanded in Yunnan, annual provincial production capacity is expected to increase to 600,000 tons by 1988. [Excerpt] [Beijing XINHUA in English 0753 GMT 24 May 86 OW] /9738

LIVESTOCK PRODUCTION CENTERS--Beijing, May 23 (XINHUA)--China plans to build 27 livestock production centers to provide more high-quality meat and pelts for its larger cities as well as for export, said an official from Ministry of Agriculture, Animal Husbandry and Fisheries. The centers will be built by central and local authorities. Agreements signed here earlier this week provided that local governments will contribute 26 million yuan and the central government 16 million yuan to pay for their construction. When they are opened, the official said, the centers will annually produce 3.82 million lean-meat pigs, 141,500 head of beef cattle, 14,700 tons of high-quality wool and 411 tons of cashmere. The official did not specify when the centers would be built. [Text] [Beijing XINHUA in English 0603 GMT 23 May 86 OW] /8918

WATER, SOIL CONSERVATION--Beijing, May 30 (XINHUA)--China's policy of encouraging individual initiative in production has paid off in faster progress in water and soil conservation work, according to the PEASANTS DAILY. Quoting a senior official at the Ministry of Water Resources and Electric Power, the paper said that about 30 percent of the areas suffering from water and soil erosion--a total of 1.5 million square kilometers or one-sixth of the country's land mass have improved. Vice-minister Yang Zhenhuai attributed this achievement especially to the new responsibility system designed to get millions of peasants involved in water and soil conservation. Under the system, families in eroded areas sign contracts with the local governments for tree planting, dam building and other tasks to improve the conditions of a certain place--usually one of the numerous eroded gullies. The families are entitled to all the benefits from their work, including owning the trees and pastures, and the local governments are responsible for providing funds and subsidies, as well as technical guidance, for such projects. So far, 25 million hectares of forests and 2.66 million hectares of pastures have been created to protect land from erosion, Yang reported. In addition, conditions have been improved on eight million hectares of arable land. [Text] [Beijing XINHUA in English 1414 GMT 30 May 86 OW] /8918

FAST PIG RAISING--A fast pig raising technique and a pig feed additive have got the state approval earlier this month. The method is claimed to enable a 40-kilogram pig to gain one kilogram of weight a day, with only an additional cost of two fen. [Excerpt] [Beijing XINHUA in English 0059 GMT 27 May 86 OW] /9738

CSO: 4020/340

SCIENTISTS, TECHNICIANS BEGIN SURVEY OF LOESS PLATEAU AREA

OW311542 Beijing XINHUA in English 1534 GMT 31 May 86

[Text] Yinchuan, May 31 (XINHUA)--A massive general survey has begun on the loess plateau to collect data for working out a development program for this poor region in northwest China.

The survey, which will cover soil erosion by the Yellow River and natural resources in the region, is led by the Academy of Sciences of China and joined by nearly 300 scientists and technicians from 50 research organizations and 15 colleges and universities.

The loess plateau includes the Ningxia Hui autonomous region, Shaanxi, Gansu, Shanxi, Qinghai and Henan provinces and the Inner Mongolia autonomous region, covering a total area of about 700,000 square kilometers and with a population of 80 million.

Although rich in natural resources, the vast region is one of the poorest in China due to frequent drought and sometimes floods that cause serious soil erosion and water loss.

The general survey marks a prelude to a large scale development of the region.

Du Guohuan, head of the survey team, said that they will use satellite, remote sensing and ground survey methods to get a clear picture of the water loss and soil erosion of the region. This, he said, will be the basis of a long-term and comprehensive development plan.

The control of soil erosion in the region will have a great bearing not only on the improvement of the plateau's environment and the development of its natural resources, but also on the safety of the people on the lower reaches of the Yellow River and the economic development in the whole of northwest China, Du said.

/8918
CSO: 4020/337

SCIENTISTS TO SURVEY QINGHAI-TIBET PLATEAU

OW091434 Beijing XINHUA in English 1356 GMT 9 Jun 86

[Text] Beijing, June 9 (XINHUA)--Scientists from the Chinese Academy of Sciences will next year conduct a scientific survey of the Qinghai-Tibet Plateau's Karakorum-Kunlun Mountains, bordering on the Xinjiang Uygur autonomous region, the Tibet autonomous region and Qinghai Province.

The Karakorum-Kunlun Mountains area covers 400,000 square kilometers, with an average elevation of 4,500 meters. The cold and dry area is sparsely populated and little known.

At a meeting to discuss the survey held here today, Vice-President Sun Honglie of the Chinese Academy of Sciences said that the survey is the key to understanding the formation and evolution of the Qinghai-Tibet Plateau, and its effect on the natural environment.

Sun was the leader of the Qinghai-Tibet Plateau expedition in the 1970s. He said there exists strong tectonic movement and well-developed alpine glaciers in the area with a peculiar frigid grassland and desert vegetation, and many wild animals.

The Qinghai-Tibet Plateau, known as "the roof of the world," has attracted many foreign scientists. In recent years, scientists from Japan, Britain, Switzerland, the United States and Pakistan have asked to do surveys there.

Since 1973, the Chinese Academy of Sciences has organized two large-scale Qinghai-Tibet Plateau surveys. The first one covered the southern part of the plateau during the 1973-1980 period. The scientists published 34 academic works after surveying an area of over one million square kilometers. The survey results were presented at the international symposium on the Qinghai-Tibet Plateau held in Beijing in 1980, drawing great attention from the foreign participants. The second survey of the Hengduan Mountains, in the southeastern Qinghai-Tibet Plateau, was carried out from 1978 to 1985. The scientists are now analyzing and studying the collected materials, and 44 volumes are expected to be published soon.

Next year's survey will cover such subjects as geophysics, geological structure, stratigraphic palaeontology, geochemistry, the quaternary geology, natural geography, landforms, glaciers, climate, hydrology, and flora and fauna zoning, according to Sun.

Sun Honglie said his academy is now organizing experts for the feasibility study of the field survey which is expected to be completed in 1990.

/12712
CSO: 4020/346

FORESTRY 'BREAKTHROUGH' SOUGHT AS TREE PLANTING BEGINS

Hefei ANHUI RIBAO in Chinese 12 Mar 86 p 1

[Responsible comrades in the provincial forestry department interviewed by ANHUI RIBAO reporter: "Organize a New Breakthrough in Forestry, Win the First Battle in the Seventh 5-Year Plan; Provincial Forestry Department Responsible Comrades Answer a Reporter's Questions"]

[Text] Provincial Governor Wang Yuzhao [3769 6735 2507] proposed at this year's Provincial Peasant Village Work Conference that agricultural production in Anhui Province needs this year to achieve a steady (the steady increase in grain) and breakthrough (the four breakthroughs in animal raising and aquatic production, township and town enterprises, forestry, and commerce) advance in circulation. On the eve of tree-planting season, a reporter from this newspaper interviewed responsible comrades of the provincial forestry department, and asked them to discuss the problem of how to organize a new breakthrough in forestry.

[Question] Why organize a new breakthrough in forestry?

[Answer] Forestry is an important job in protecting, cultivating, and reasonably using forest resources, speeding up the reforestation of the motherland, creating a good natural ecological cycle, and building spiritual civilization and material civilization. Developing forestry is a basic policy of China. During the Sixth 5-Year Plan, Anhui Province's forestry is advancing in the midst of reform, step by step taking the route of steady growth, and has achieved a better record. However, forestry is currently still a "short leg" in the economy of Anhui Province, and the economic, ecological, and social benefits that there ought to be are far from meeting demand. Because of this, the pace needs to be picked up in forestry production during the Seventh 5-Year Plan, and progress even more solidly and effectively. This is the first year of the Seventh 5-Year Plan. Do not miss the opportunity to organize a new breakthrough in forestry, further mobilize the people of the province, create, nurture, and protect forests, and complete or exceed the forestry product task for 1986. Winning the first battle is of major significance in realizing the Seventh 5-Year Plan.

[Question] What measures have been adopted to realize the new breakthrough in forestry?

[Answer] Generally speaking, they center on adopting the measures of completing the plan for forestry work, raising the quality of forestry work, and ensuring the results of forestry work. The main points are:

1. Further perfect the forestry contract responsibility system: Under the principle the contract responsibility system steadily creating forests, forestry work needs to do a better job of implementing the methods of the state, collectives, and individuals seizing together manmade reforestation, nurturing trees by closing off mountains, reforesting by aerial planting, planting together in higher elevations and in ditches and with grasses and flowers all together, and see the job through to contracting units and households, sign contracts, and specify responsibilities, rights, benefits, and rewards. Households that contract for more sizeable areas of waste mountains need to be energetically helped to do a good job of forest production and diversified operation. Get a firm grip on setting up the responsibility system for waste mountains and waste lands where the responsibility system has not yet been applied.

2. Further adjust the forestry structure: Continue with the planned creation of timber forests that have quick and rich timber production, energetically expand commercial forests, strongly expand fuel and protective forests, and appropriately expand special-use forests. In addition to adding whole sections of forests in mountain districts and ceasing cultivation and reverting to forests, other districts when managing forests also need to energetically expand small forests, do a good all-round job of reforesting, and reforest in cities and towns. Troop, transport, water conservatory, rail, mining, and other departments have to further do a good job of reforestation in their own organizations.

3. Strictly carry out quality control: Do a good job of research design for forest management, strengthen construction inspection, get a good grip on inspecting and checking completed construction according to the rules of technology, and, moreover, unify investments, and rewards and punishments. As for creating fast-growing and plentifully productive forests, it is first necessary to uphold high quality and high standards, and achieve demands for creating forests and timber.

4. Continue doing a good job on seedlings: To suit the structural adjustment of forestry and the effective creation of forests, high-quality stout seedlings need to be raised that suit the market.

5. Increase forestry investments: The state has already decided to increase Anhui Province's low-interest loans for forestry this year. We need to conscientiously do a good job of utilization and management. It is at the same time necessary to unearth the potential within the province and raise funds through diverse channels to meet the needs of a new breakthrough in forestry.

[Question] Central Committee Document No 1 directed that the loosening up of collective forest district lumber be upheld, and that there be no retreat. What use does the opening of lumber to use have for a new breakthrough in forestry?

[Answer] The opening up of lumber to use is a major reform of the lumber economic system. Since the opening up of lumber use last year in Anhui Province, the overall situation is good, forestry and agricultural income increased, and growth in production in managed forests was promoted. Though there are some places where there was indiscriminate cutting of lumber and denudation, it was quickly controlled. Because of this, continuing to do a good job of opening up lumber to use must produce the function of an even greater acceleration in doing a good job of production in managed forests and in organizing a new breakthrough in forestry. In order to firmly implement the opening up to use of lumber, the currently pressing job is to strengthen government forest management, practice limited cutting, strictly do the "three certifications" (cutting certificate, transport certificate, sales certificate) management system, integrate the energetically creating, quickly renewing, and rationally cutting of forests to make forestry truly take a track which is the good cycle of "the more that is cut, the more there is," and "the more that is cut, the better it is."

[Question] How is leadership to be strengthened in organizing a new breakthrough in forestry work?

[Answer] The CCP Central Committee and State Council have already determined to place responsibility for reforestation of all places and bureaus on the leadership at all levels and in all departments. This requires of the leadership which is charged with the important responsibility of reforestation to do their duty and in the spirit of the foolish old man who moved the mountain lead the masses, insist on not letting up, and move forestry work forward. Currently, time and energy must be concentrated, and all energy committed to quickly planting trees, creating forests, and planting grass, and at the same time to conscientiously do a good job of lighting drought, preventing fires, and so on. Aside from this, new management for creating forests, protection of current forests, formulation and execution of forestry plans, the performance and inspection of commercial contracts for forestry, the raising of forestry funds and use management, the spreading and promoting of the scientific technology of forestry, and so on must all be emphasized and a good job done to promote the continued, steady, and coordinated development of forestry in Anhui Province.

13152/5915
CSO: 4007/345

ANHUI

COTTON AREA PRODUCTION DECREASES, RECOVERY MEASURES ADOPTED

Heifei ANHUI RIBAO in Chinese 14 Mar 86 p 2

[Article by Xu huandou [1776 3562 2435]: "Be Sure Not To Ease Up on Cotton Production"]

[Text] The author has recently learned from the provincial agriculture, animal husbandry, and fisheries department that: though Anhui Province's unit production of cotton rose last year in comparison to 1984, because of reduced area total production dropped more than 1 million dan. In a reaction at a provincial agriculture bureau directors' meeting held recently, if positive measures are not adopted the area in cottonfields will still tend to drop. Attention must be paid because of this.

Anhui Province is one of the provinces with the task of exporting cotton, and occupies an important place nationally in area and gross production. The province needs over 3 million dan of cotton annually. Cotton quality is good in Wangjiang and other counties, which has been deeply welcomed by outside traders, and prospects for growth are vast. If a good job is to be done this year in production, and on the basis of the need to raise planting knowledge, firmly implement now all of this year's plans and measures, and do a good job of cottonfield preparation work.

First, fix cotton area at the earliest according to the state plan: Area ensures gross output. If area is unstable, cotton yields will not be stable. If cottonfield area continues to drop, it will induce a reduction in the base for orders and cause a drop in government revenues and peasant incomes. Development in counties of the cotton base area will also be affected. In a sentence, it will not help economic growth. Because of this, the area in cotton is to be fixed according to purchase contracts to make cottonfield preparation begin at the earliest.

Second, select good varieties for use: Cotton quality in Anhui Province is falling, mainly because of drop in fiber strength and maturity. In addition to not helping raise textile quality, it also affects cotton exports. Good varieties need to be selected for use to raise quality. The Yanjiang district needs to stabilize Humian 479 and 204; Jiangwei Qiuling district needs to stabilize Daizi No 16; Weibei district needs to stabilize Xuzhou 514, and other good varieties. Also, purification and rejuvenation is to be constantly strengthened, and conditions for building again renovated.

Third, raise cultivation techniques: Cultivation technique has a major impact on fiber quality and yield. Because of this, experience needs to be analyzed and progressive techniques adoped for use. In addition to careful selection of good varieties, complete renovation of cottonfield irrigation canals and ditches, judicious application of fertilizers, and disease and insect control, this year's major focus in the spread of techniques will be: transplanting of large and young seedlings, plastic film cover, covering the transplanted young seedlings, using applications of growth regulator, and comprehensively controlling disease and insect injury.

Fourth, make arrangements for crop rotation: It is necessary to reasonably make arrangements for crop rotation and create conditions for high production and quality if yields and quality are to be raised. Low enthusiasm for cotton growing and low yields and dispersed area should be confronted by collectivization. In cotton districts where the proportion of double-cropping is large, young seedlings should be energetically and widely transplanted onto rapeseed stubble, barley stubble, and broad bean stubble to solve the problem of late maturing and reduce the ratio of blooming after the frost.

Fifth, implement policies on expanding cotton production: An important reason for the decline in cotton area is that some policies are not implemented. All places should strengthen work in this area, assure pricing policies, reward grain and fertilizer policies, and implement good quality and good prices and rewards for surpassing production. Places with favorable conditions and districts with better developed economies still can carry out some preferential policies for cotton production to ensure the steady development of cotton in the province.

13152/5915
CSO: 4007/345

NONSTAPLE FOOD RESULTS, MEASURES NOTED, ANALYZED

Hefei ANHUI RIBAO in Chinese 16 Mar 86 p 2

[Reported by Peng Hua [1756 5478] and Yuan Yalin [5913 0068 2651]: "The Vegetable Basket of the Masses Has Started To Become Bountiful; "Anhui Province's Cities' Nonstaple Food Production and Sales Work Summarized"]

[Text] Over this New Year, there were full supplies, wide selection, stable prices, and convenient purchasing of nonstaple food products in the various city's of Anhui Province, and the masses had a restful year. The New Year market is a "window." From it can be seen that, in restructuring the production and marketing of nonstaple foods in Anhui Province over the past few years, growth has been continuous, results more obvious, and conditions have become better and better. Its fundamental signs are: production growth, an increasingly more prosperous marketplace, basically stable prices, and the "vegetable basket" of the masses gradually growing abundant.

Looking at the nonstaple food products in the cities under Anhui Province jurisdiction, the area sown in vegetables in 1985 reached 556,000 mu, a 123-percent increase over 1980. Over the same period, fresh vegetable yields from exclusively vegetable land increased 45.4 percent. Last year's pork, beef, and mutton yields reached 152,300 tons, a 28-percent increase over the preceeding year. Last year per capita meat consumption was 11.52 kg, a 26.6-percent increase over the preceeding year. The provincial government's originally planned aquatic product yield for before 1985 was 14,100 tons. The actual result was 15,750 tons, a 1.63-fold increase over 1980. The self-set fish commodity standards for eight cities under provincial government jurisdiction also all exceeded the original plan. In the Sixth 5-Year Plan, domesticated fowl yields and per capita numbers more than doubled. Egg yield for last year was 62,300 tons, and per capita consumption was 4.72 kg, an increase over the preceeding year of 37.8 percent and 37 percent, respectively. Milk yields for the same period increased by 30.3 percent. Provincial watermelon and muskmelon production for last year was 1.6 million tons, a 3.7-fold increase over 1980.

Nonstaple food product growth has not only made market supplies abundant, slack and busy season differences have also contracted, product variety increased, and quality clearly risen. For instance, "four changes" have appeared for meats--frozen to fresh, fatty to lean, whole to cut-up, and raw to cooked--and "three developments" have appeared for vegetables--coarse to fine, the ratio of delicate vegetables rises yearly; few to many, in the past there were nearly 10 varieties of vegetables and nowadays there are 20 to 30 varieties in the off season; and low- to high-grade, famous, speciality, rare, and high-quality products are gradually increasing.

"See conditions from vegetable basket contents." The nonstaple food product supply situation directly affects economic work, social development, and the people's stability and unity. The provincial party committee and provincial government pay full attention to nonstaple food production and marketing, consistently take them as a work focus to be grasped, and annually provide a lot of money from limited financial resources to subsidize nonstaple food production and marketing. In recent years, the provincial party committee and provincial government started with reform, and set up a nonstaple food production and marketing responsibility system, restructured production and marketing management systems, energetically cleaned out circulation channels, adjusted peasant village, and especially suburban, production structure, and so on. This has been of great use to the development of nonstaple food products and the prosperity of the marketplace within the provincial domain.

Under the provincial party committee and provincial government's leadership, the various cities of Anhui Province have suited measures to local conditions, explored energetically, worked hard, achieved preliminary results, and accumulated considerable successful experience. Generalizing, there are by and large these several dimensions:

1. The various dimensions of leadership stressing and assisting in, and pragmatically being concerned with getting a handle on the "vegetable basket" of city residents. Last October, Hefei City egg prices jumped upward. The masses took exception. The Hefei City leadership immediately organized three poultry farms and made a big investment in eggs, organized state-run enterprises to bring in goods from the outside, offered a price below that at the market, neither levied taxes nor charged management fees, speedily curbed city prices, and steadied the market. The masses said, nonstaple food supplies were "extremely difficult." The "bosses" (referring to the leadership) stepped forward, and then it was not difficult.

2. Upholding reform and implementing "linking together opening up and clamping down." In the past 2 years since implementing the nonstaple food marketing system and state-run, collective, and individual [enterprises], Anhui Province's various cities have encouraged peasants to enter the city, gradually form a multichannel nonstaple food market, operate everywhere, have production and sales meet face-to-face, and have market adjusted prices. According to incomplete statistics, cities under provincial jurisdiction built over 270 peasant markets and a whole group of wholesale markets. Also, peasant-merchant, merchant-merchant, and worker-peasant diversified nonstaple food jointly run operations also came into existence. Additionally, and at the same time that opening up and enlivening were taking place, management was strengthened, assuring the steady development of nonstaple food marketing, and creating a whole new route of "linking together opening up and clamping down."

3. Targeting the needs of city people, and spiritedly adjusting suburban industrial structure. Many cities have established an outlook of suburbs serving the cities, which makes nonstaple food production dictate grain production. Bengbu City upped investments, made use of subsidies, compensation trade, discounted loans, preferential supplying of feed and material, and other methods, and energetically expanded suburban and county state-run, collectivized, and individual nonstaple food production to steadily create a group of nonstaple food production bases. There currently are 25,000 major animal-raising households, and nearly 1,300 head of grain-fed milk cows. This city's own nonstaple food supply has a surplus. Last year, 140 million jin of vegetables were sent to market. Aside from assuring vegetables for consumption by residents, there were also shipments outside. Per capita fish consumption was 27 jin, and milk consumption was 6.3 kg.

4. To spread new technologies and techniques. The towns administered from the county seat,Dangshan County's Longhai district, and Hexian's Chengnan and Shenxiang townships use large plastic canopies for vegetable production. Amount, selection, and quality have either greatly increased or risen, supporting vegetable supplies around the cities as well as sales to the cities of other provinces. Despite the great expansion of Anhui Province's cities' nonstaple food production and marketing, there is still a considerable disparity in comparison to the needs of the masses of people, and quite a few problems exist. The provincial government recently held a meeting on city nonstaple food production and marketing work, reviewed experience, and analyzed the situation, and established measures. We believe it is only necessary to insist on reform, do a solid job, and city and township nonstaple food production and marketing certainly will have a new breakthrough, and the vegetable basket of the masses of people will be even more bountiful.

13152/5915
CSO: 4007/345

RENEWAL ENERGY POWERS RURAL VILLAGES IN BEIJING

OW041300 Beijing XINHUA in English 1123 GMT 4 Jun 86

[Text] Beijing, June 4 (XINHUA)--Six years ago, Yihezhuang village was like thousands of others in China. As a suburb of a major city--in this case Beijing--it had electricity for lights at night. But beyond that, its 650 residents lived much as their forebears did a thousand years ago.

They burned wood for cooking, when they could find wood. When they could not, they burned rice straw, wastefully consuming a valuable fertilizer. And they had no running water.

Now, in what leaders hope is a projection of rural China's future, most of the city's residents live in specially designed solar homes, complete with running water and enough electricity to power everything they own.

At the same time, insulation has made the houses "cool in summer and warm in winter," Yan Liqiang, a middle-aged villager told a visitor recently.

The people of Yihezhuang--and three other similar villages near Beijing--have been extraordinarily lucky. What made them so well off was the chance decision in 1980 by officials of China and the Federal Republic of Germany to make their community into a model renewable energy center.

Six West German companies and seven Chinese universities and research institutes participated in the project.

From the beginning, installing running water was a high priority. Engineers designed a system powering two water pumps with solar energy cells. The pumps can supply the village's drinking water--which, like all water in China, must be boiled before it is consumed--as well as water for washing and for irrigation.

Another key element in the project is a solar water heating system capable of providing 60 liters of warm water a day to each household in summer months.

For cooking, thanks to the project, local residents can use methane gas, derived from small solid waste pits. The village's largest waste pit also powers a generator with a 12.5 kilowatt capacity.

"In Yihezhuang, we don't worry about energy anymore," Yan said.

But throughout China's vast rural areas, where 80 percent of the country's people live, energy is so short that solutions such as Yihezhuang's are not yet practical.

More often than not, shortages are so severe that farmers, lacking cooking fuel, consume otherwise healthy grass and trees, worsening China's already battered ecology.

That is why projects such as Yihezhuang are so important, said organizers at a ceremony at the village earlier this week.

Honoring Federal Germany for the donation of its part of the project to the people of China, Ji Yanshou, vice-chairman of the Beijing municipal Science and Technology Commission, predicted both countries "will continue to cooperate until in China these techniques are universal."

He said experts from elsewhere in the country and throughout the third world were being invited to come and study how the village had been changed.

/12712
CSO: 4020/346

INCREASED GRAIN PRODUCTION URGED BY HU PING

OW040153 Fuzhou FUJIAN RIBAO in Chinese 24 May 86 p 1

[Excerpts] At a province wide telephone conference held jointly by the Fujian provincial CPC Committee and the provincial People's Government on the evening of 22 May, Comrade Hu Ping pointed out that we should firmly grasp two things in promoting grain production at present.

First, we should firmly grasp field management, and the main task should be the prevention of plant diseases and insect pests. The total acreage of farmland suffering from plant diseases and insect pests in the province has exceeded 1 million mu.

Second, we should vigorously expand cultivated areas and promote intercropping and interplanting to make up for the unfulfilled acreage after the spring harvest and the planting of early rice. Various localities should, in line with local conditions, utilize young forest areas, orchards, idle land, miscellaneous marginal land, ridges, and waste land to plant sweet potato, bean, and other grain crops to total 800,000 mu in the province. At the same time, it is necessary to conscientiously check seed preparation for crossbred late rice and pay attention to fulfilling the required acreage of late rice. We should strive to fulfill the planting of 8.6 million mu of crossbred rice. We should vigorously promote the use of fine strains that have high yield and resist crop diseases. We should also disseminate experience in utilizing medium- and low-yielding farmland and implement measures to transform such farmland. In addition, we should open up more fertilizer sources and vigorously accumulate organic fertilizer. The acreage of land using late rice straw to boost fertility should be more than 4 million mu in the entire province.

/12712
CSO: 4007/428

BRIEFS

WORLD BANK LOAN--The World Bank has provided 45 million U.S. dollars in loan to east China's Fujian province. Part of the loans are being used to develop aquatic culture. The 900-kilometer coastline in eastern Fujian has 22,000 hectares of polder, which can be turned into fish ponds or farmland. [Excerpt] [Beijing XINHUA in English 0059 GMT 27 May 86 OW] /9738

CSO: 4020/340

BRIEFS

LIVING STANDARD IN DINGXI--Lanzhou, 1 Jun (XINHUA)--A poor county in China, Dingxi in the northwestern province of Gansu, has more than doubled its per capita income in the past three years, provincial officials said here today. The annual per capita income of the county, which has a population of 300,000 and covers about 3,000 square kilometers of arid and infertile land, reached 246 yuan in 1985, as compared with less than 100 yuan in 1983, said the officials. The county's per capita grain production was 375 kilograms last year, a 225 kg increase over that of three years ago, they added. China's central government and the provincial government of Gansu have invested more than 15 million yuan in the past three years to help the county. The government money was spent in the form of "providing peasants with work as a kind of relief," said the officials. The work provided includes growing trees and grass and developing animal husbandry. With help from enterprises in Beijing and other cities and provinces, Dingxi county has also opened more than 2,000 rural industrial enterprises, employing 10,000 workers. The officials said Dingxi county's successful experience is significant for another 25 poor counties also on the Loess plateau which likewise are receiving government help for similar problems. [Text] [Beijing XINHUA in English 0731 GMT 1 Jun 86 OW] /9738

CSO: 4020/340

BRIEFS

FROZEN FOOD COMPANY--A newly-built frozen food company, a Guangdong-Hong Kong joint venture in Guangzhou, the provincial capital, will set up a factory to produce ice-cream, soda water, ice, frozen food and food packages. With a floor space of 8,800 square meters, the factory is scheduled for completion in January 1988 and its produces are to be sold in Guangdong and Hong Kong. [Excerpt] [Beijing XINHUA in English 0659 GMT 27 May 86 OW] /9738

RURAL SAVINGS--As of the end of March, rural savings in Guangdong were more than 10.28 billion yuan, a net increase of more than 1.2 billion yuan over the end of last year. [Excerpt] [Guangzhou GUANGDONG NONGMIN BAO in Chinese 18 Apr 86 p 1]

CSO: 4007/427

FARMERS STRUGGLE AGAINST SALINE LAND

OW030638 Beijing XINHUA in English 0607 GMT 3 Jun 86

[Text] Beijing, June 2 (XINHUA)--Treating salinity of land is an enormous task for Chinese farmers, but given enough funds and incentives, they can certainly win.

An example is Quzhou county, 170 kilometers southeast of Shijiazhuang, capital of Hebei Province, which, with food aid from the U.N. World Food Program [WFP], have brought half of their saline fields under control over the past three years.

The average annual per capita income of local peasants rose from less than 50 yuan in 1978 to 308 yuan last year, slightly higher than the country's average, as a result.

The once dry and barren fields are now lush with green wheat fields, presenting a sharp contrast to the desolated land surrounding them.

According to Quzhou county records, land in this area has had a heavy salt content for at least 2,000 years. Of the 20,000 hectares of arable land, 16,000 hectares are seriously saline. Local residents had to process salt as a sideline.

The sporadic rainfall in the region worsened the problem, resulting in alternate drought and flooding. The poor environment stymied local agricultural production, making it one of the poorest spots in North China.

Work began to tackle the salinity problem in 1973 when the Beijing Agriculture University opened a saline soil amelioration experiment station there. But the experiment did not produce any significant results for want of funds and facilities.

As rural economic reforms unfolded in 1979, local farmers' desire for changes became ever stronger and the Chinese Minister of Agriculture, Animal Husbandry and Fisheries began to approach the United Nations for aid.

The food aid program was arranged through the agricultural development fund and the world food programme.

The WFP agreed to provide food for 11.2 million workdays during the project period, as compensation for the labor contributed by the local people. The food ration (for each workday it is three kilograms of wheat and 50 grams of edible oil) and the freight charges covered by WFP totalled eight million U.S. dollars.

The Chinese Government undertook to pay the salaries to all administrators and technicians participating in the project as well as office expenses and fees for all raw materials, equipment and other expenses needed by the projects.

By the end of 1985, the Chinese Government had spent nearly eight million U.S. dollars on the soil improvement and irrigation projects in Quzhou and another impoverished county.

The desalination plan was made by the Beijing Agriculture University, which included leaching of salt by digging wells and canals, and planting trees and levelling farmland. The project proceeded smoothly.

By the end of 1985, the Quzhou project area had built 967 bridges, tunnels and water gates, dug 688 deep wells, planted 20,000 hectares of nurseries and trees, levelled 6,000 hectares of farmland and reclaimed more than 1,000 hectares of wasteland.

The Chinese people understand very well the relationship between man and nature, said Salahuddin Ahmed, WFP's deputy executive director after inspecting the projects in 1984. The farmers are enthusiastic about treating their soil, he said, and local intellectuals and farmers have worked well together.

Liu Qinxiang, deputy governor of Quzhou county and director of the project administrative office, said that WFP's food aid was a major contributing factor to his county's changes. He promised that after residents in his county become better off, they would like to contribute food aid to other developing countries through WFP.

/12712
CSO: 4020/345

PROVINCE PRODUCES 90 PERCENT OF COUNTRY'S FLAX

OW 261354 Beijing XINHUA in English 1346 GMT 26 May 86

[Text] Harbin, May 26 (XINHUA)--Heilongjiang Province in northeast China has become China's flax production base, producing 90 percent of the country's total.

It will achieve an annual output value of 710 million yuan of flax production and an export volume of U.S. $130 million by 1990--increases of 3.8 times and 4.9 times, respectively, over 1980 and 1981.

According to Zheng Songgu, manager of the province's flax company, a complete production system from planting and processing to research and marketing is taking shape in Heilongjiang.

The province's flax-growing area covers 80,000 hectares, accounting for 90 percent of the country's total.

With a history of some 50 years of the flax processing, the province now has 13 big processing plants and 23 processing factories run by townships with an annual production capacity of 25,000 tons of flax fibre, said the manager.

It also has nine flax cotton mills and five flax textile mills, he added.

Over the past few years, Zheng noted, the province has developed several flax products welcomed by consumers both at home and abroad. Its fine flax cloth, for instance, has been exported to Japan, the United States, and Hong Kong and Macao since 1981.

The province also exported some 20,000 tons of flax fiber a year, accounting for 90 percent of the country's total and 8 percent of the world's total trade volume.

Linen cloth handicrafts made in processing factories in the country's nine port cities using raw material from Heilongjiang have been sold to more than 100 countries and regions.

During the 1986-90 period, the manager said, the province plans to import the world's most advanced technology and latest achievements.

/8918
CSO: 4020/337

HENAN

BRIEFS

WATER CONSERVANCY MEETING--According to HENAN RIBAO, at a provincial symposium on perfecting agricultural water conservancy management responsibility systems which concluded on 20 May, Provincial CPC Committee Deputy Secretary Liu Zhengwei put forward new demands on water conservancy work in the province: The province must repair 50 percent of its water conservancy projects by year end. At the same time, the management responsibility systems must be basically on a sound footing, and a township and village water conservancy service setup must be basically established. Liu Zhengwei gave the following views on how to do a good job in water conservancy construction: 1) The principal party and government leaders must attach importance to the work and the departments concerned must jointly organize and take charge of it. 2) The increased state investment in water conservancy is mainly to be used on large projects. The repair and construction of small projects is to be done by the peasants themselves. 3) Apply the reform spirit to manage and use the existing projects well. At present it is essential to focus on firming up and perfecting the water conservancy responsibility management system and establishing a services setup. 4) Firming up the management responsibility system and repairing the projects should proceed simultaneously. In this way the repaired projects will not be damaged again, while management work will embark on a benignant cycle. [Excerpts] [Zhengzhou Henan Provincial Service in Mandarin 2200 GMT 23 May 86 HK] /8918

GRAIN AREA--Based on statistics, this year the area planted to grain in Henan was 138,900,000 mu, an increase of 8,240,000 mu over last year. [Excerpt] [Beijing JINGJI RIBAO in Chinese 22 May 86 p 1]

CSO: 4007/427

REPORTAGE ON HUBEI EFFORTS TO FIGHT DROUGHT

Governor Speaks At Meeting

HK310229 Wuhan Hubei Provincial Service in Mandarin 1000 GMT 30 May 86

[Excerpts] The provincial government held an urgent meeting this morning to look into the struggle against drought. The meeting demanded that leaders at all levels and all departments concerned concentrate all forces and make still greater efforts to fight drought and ensure the crash-transplanting of mid-season rice. It is also necessary to step up the tending of early rice, cotton, and other crops, to ensure a bumper harvest this year. Governor Guo Zhenqian spoke at the meeting.

The meeting first heard a report on the drought in Jingzhou Prefecture from a responsible comrade of the prefectural commissioner's office. Jingzhou is seriously affected by drought. By 29 May, the prefecture had irrigated 2.8 million mu of crops. However the drought is still developing, and the struggle is becoming more and more difficult.

According to statistics, since 18 May the area of farmland in the province affected by drought has increased by an average of 1 million mu a day. By 28 May, 21 million mu of farmland were affected, including 14 million mu of early and mid-season rice. The drought on this 14 million mu is affecting a grain output of over 10 billion jin. The situation is very serious.

Governor Guo Zhenqian said in his speech: The drought in Hubei began last winter. It has lasted a long time. The leaders at all levels must attach a high degree of importance to this problem. In view of the current serious drought, the provincial CPC Committee and government will issue an urgent circular. Guo Zhenqian therefore made the following demands:

1. The severely drought-stricken areas of Jingzhou, Huanggang, Xiangfan, and Xiaogan prefectures and cities must currently concentrate all energy to ensure the completion of crash-transplanting of mid-season rice on time and up to the mark in quality and quantity. Field tending of early rice and cotton must be stepped up, to ensure a bumper harvest this year.

2. Reduce urban electricity consumption to ensure the needs of agriculture in fighting drought. The provincial authorities will divert 100,000 kilowatts

of electric power from large and medium cities to agricultural use for fighting drought. At least 70 percent of the electric power in the prefectures should be allocated to fighting drought. We must ensure that 11 million mu of early rice are irrigated by 10 June, and that 14 million mu of mid-season rice can be transplanted on time.

3. Diesel fuel allocated to the rural areas must be used for fighting drought. It must not be diverted to other purposes.

4. Leaders must go to the frontline to find out the situation and help and provide guidance for the struggle.

Urgent Instructions Issued

HK010251 Wuhan Hubei Provincial Service in Mandarin 1000 GMT 31 May 86

[Excerpts] The Hubei Provincial CPC Committee and People's Government issued urgent instructions on 30 May on taking effective steps and losing no time in fighting drought, crash-transplanting rice, and protecting young crops. The instructions say: At present the drought is spreading in the province. The following instructions are issued in order to organize an extensive struggle to fight drought, crash-transplant mid-season rice, irrigate the drought-affected early rice, and ensure a full cotton crop:

1. Fully understand the seriousness of the current drought and the urgency of fighting drought, crash-transplanting rice, and protecting young crops, and strive for victory in the struggle. Hubei has been suffering one of its most protracted droughts since last winter. In the previous period, victory was won in the struggle to crash-transplant early rice and nurse mid-season rice seedlings thanks to the hard work of the cadres and masses. However, at the crucial moment when it is time to crash-transplant the mid-season rice and to tend the early rice--a time when a great deal of water is needed--the drought is still developing in most parts of the province. In particular, May rainfall has been 30 to 50 percent below normal, and moreover temperatures and evaporation rate have been high. The area of farmland affected by drought has increased daily. At present, there is no water for transplanting on nearly 8 million mu of mid-season rice, while 6 million mu of early rice are short of water. Cracks have appeared in some fields and rice plants have even withered and died in some areas. Cotton and other dryland crops have also been hit by drought over wide areas. There is even a serious drinking water shortage in some places.

Most of the areas seriously affected by drought are concentrated commodity grain areas. Whether or not we can in the next 10 days complete the crash-transplanting of mid-season rice on time and up to the mark in quality and quantity, tend the early rice well, and solve the problem of nursing late rice seedlings will have a very great bearing on whether we can accomplish this year's grain production plan and achieve a bumper harvest.

2. Be determined to reduce electric power and fuel for industrial use, to ensure the needs of fighting drought, crash-transplanting, and protecting

young crops. As the drought goes on developing, the struggle against it becomes more and more difficult. The requirement for fuel oil also correspondingly increases. The provincial CPC Committee and government have decided to increase power supplies for fighting drought by a further 100,000 kilowatts. The electric power departments are responsible for seriously firming this up. The extra supply comes into effect in the afternoon of 31 May. The localities must also further reduce power supplies for industry, especially in areas where the drought is serious. With the exception of hospitals, grain and oil processing units, industries whose power cannot be cut, and essential supplies for people's daily life, all units must have their power supply cut to aid the struggle against drought.

The greater part of existing diesel fuel stocks must be taken out for use in the struggle against drought. The petroleum departments must do everything possible to organize transfer and transport of these stocks ahead of schedule, to meet the urgent needs of fighting drought.

3. It is essential to make rational plans for the full use of all existing water sources. At present there is a serious water shortage. Total water storage in the province is several billion cubic meters less than at this time last year. Water levels in rivers and lakes are low, and ponds have dried up. However, most places still have some water they can use. Hence, these sources must be used rationally, and the principle of mutual accommodation should be advocated.

The water at some hydroelectric stations has now gone down to the level at which power generation is restricted. They must stop generating power, to ensure water for fighting drought.

4. The party committees and government at all levels must strengthen leadership over the struggle against drought. Responsible comrades must go to the frontline of the struggle.

/8918
CSO: 4007/421

HUNAN GOVERNOR ON STRATEGIC TASKS OF SEVENTH 5-YEAR PLAN

HK240159 Changsha Hunan Provincial Service in Mandarin 0900 GMT 23 May 86

[Excerpts] Governor Xiong Qingquan said in his government work report at the fourth session of the sixth provincial people's congress that the first strategic focal point in the province's Seventh 5-Year Plan is to continue to strengthen agriculture, the foundation of the national economy.

He said: Agriculture is a major strong point in Hunan economy. During the Seventh 5-Year Plan, we must seriously implement the principle of actively promoting diversification without any slackening of grain production; under the premise of ensuring steady increase in grain output, we must readjust and improve the rural production structure in a planned way. The sown area of grain must be stabilized at the current level. We should further improve yields and quality through stepping up agricultural capital construction and popularizing science and technology. At the same time, we should develop crop cultivation, stockbreeding, mining, processing, construction, electric power, transport, commerce, and service trades in light of local conditions.

Governor Xiong also announced a number of agricultural commodity bases to be built during the Seventh 5-Year Plan. He said: It is essential to increase agricultural input in order to speed up agricultural development. Investment in agricultural capital construction during the Seventh 5-Year Plan will increase by 57 percent compared with the sixth. The state has listed the work of taming the Dongting Hu as a key project requiring an investment of 150 million yuan. Most of this will be spent on improving and building 12 large dykes.

We must continue to develop small hydroelectricity projects. During the Seventh 5-Year Plan, the installed capacity of such projects will increase by 350,000 kilowatts. We will focus on 10 pilot-project counties in rural electrification.

Governor Xiong Qingquan said that the second strategic focal point to be grasped during the province's Seventh 5-Year Plan is to strengthen the weak links such as energy, communications, telecommunications, and raw materials in short supply. This is the key to invigorating Hunan's economy. Investment in such projects accounts for 47 percent of investment in fixed assets during the Seventh 5-Year Plan.

In energy construction, we must focus on electric power. In communications construction, we must focus on drawing water from north to south and on constructing airports, railroads, and telecommunications. In telecommunications, we should focus on building the direct-link network involving Changsha, Zhuzhou, and Xiangtan; the north Hunan microwave project; the Changsha digital telephone system; and the microwave project linking Changsha with southwest Hunan.

In the production of raw materials in short supply, we should focus on increasing output capacity of iron and steel, non-ferrous metals, high-quality cement, caustic soda, soda ash, chemical fibers, and plastics.

Governor Xiong pointed out that while ensuring key construction work, it is essential to get a vigorous grasp of technological transformation in existing enterprises and pay attention to greatly developing the consumer goods industry. The province's Seventh 5-Year Plan has initially allocated 4.8 billion yuan for renovation and transformation in units owned by the whole people. This is mainly to be spent in 112 backbone enterprises in 15 sectors.

In the consumer goods industry, we should focus on food, textiles, clothing, consumer durables, chinaware, paper, hides, plastics, and on packaging and so on.

Governor Xiong Qingquan, speaking on the third strategic focal point in the province's economic development during the Seventh 5-Year Plan, stressed that it is essential to assign an important strategic position to developing science and technology and education. Centered on key problems in economic construction, we should organize 22 major research projects aimed at finding solutions, and step up the digestion, absorption, and new modification of imported technology and equipment. We should focus on developing microelectronic technology, information technology, biological engineering technology, and new materials technology, and form a number of new-style production undertakings.

The focus in education work will be to strengthen basic education and the building of the teaching force in secondary and primary schools. We should strive to improve the quality of education. The percentage of primary school graduates going on to secondary education should rise to 70. We should strive to introduce universal junior secondary education in areas containing 20 percent of the province's population. The number of secondary technical and vocational school graduates should increase by 140 percent over the figure for the Sixth 5-Year Plan. The number of graduates in regular and specialized courses from ordinary tertiary institutes should rise by 56 percent.

Xiong Qingquan stressed that during the period of the plan, full attention must be paid to economic and social development in old revolutionary bases, minority-nationality areas, and remote and poor regions. Arrangements have been made for supporting their development, and capital, material, and technical assistance has been boosted. It can be further increased in the course of the plan in light of the circumstances.

/8918
CSO: 4007/418

HUNAN VICE GOVERNOR ON FIGHT AGAINST DROUGHT

HK301123 Changsha Hunan Provincial Service in Mandarin 0900 GMT 29 May 86

[Radio, Television speech by Hunan Province Vice Governor Cao Wenju entitled: "Take Immediate Action, Resolutely Fight Natural Disasters, Reap Bumper Harvests"--live]

[Excerpts] Following serious drought last year, the province was again hit by serious drought in spring and summer this year. The province was scheduled to grow 28 million mu of early rice, but has actually grown 27.5 million mu, of which 12.5 million mu were hit by drought. About 2.5 million mu of early rice are now desiccated and there is no water to irrigate 600,000 mu of middle season rice. Some rice seedlings have withered. Dryland grain and economic crops have also been seriously hit by the drought. Seedlings of some crops cannot be planted, resulting in losses. The drought is now developing.

The drought in the province is due to the following reasons:

1. Less rainfall. The province's average rainfall by 20 May was 433 mm, 25 percent less than the 580 mm in the same period of last year.

2. Less stored water in the province's water conservancy projects. By mid May, the province's reservoirs were storing 9.8 billion cubic meters of water, 56 percent of the schedule. This figure is 460 million cubic meters less than that in the same period of last year, a year hit by serious drought.

3. A low water level in the province's rivers and lakes. The province's four major rivers--namely, the Xiangjiang, the Zishui, the Yuanjiang, and the Lishui--and Dongting Lake all have a low water level.

4. High temperature, long sunshine time, and quick evaporation. The whole province had hot and fine weather in early and mid May, with the average temperature 3 to 6 degrees higher than that in the same period of previous years.

There has been some rainfall in some areas over the past few years. However, due to its protractedness and seriousness, the drought is still developing. Therefore, our antidrought task will become more and more arduous. The next 10 to 15 days will be the essential period for the growth of early rice, as well as the period for planting middle season rice seedlings. The success of antidrought work in this period will not only ensure a bumper first harvest this year, but will be very important to reaping bumper harvests throughout the year. Therefore, the provincial CPC Committee and government call on the people throughout the province to take immediate action to combat drought and to protect seedlings, plant middle season rice seedlings, and grow dryland grain and economic crops while fighting drought, so as to reap an overall harvest this year.

1. It is necessary to understand fully the seriousness of this year's drought and to establish the idea of fighting protracted and serious drought.

2. It is necessary to strengthen leadership over antidrought work in a down-to-earth manner. Responsible party and government comrades at all levels must lead cadres to the antidrought first line to properly organize and guide the antidrought struggle.

3. All water conservancy projects must continue to establish and perfect the water control responsibility system and use water in a planned and economical way.

Water conservancy projects that combine irrigation and electricity generating but that stress irrigation must now strictly control electricity generating. In particular, water conservancy projects that cannot effectively combine irrigation and electricity generating must stop generating electricity to ensure water supplies for farmland irrigation.

4. All departments and trades must think and do everything to fight drought and help rural areas overcome difficulties in the antidrought struggle in human, material, and financial resources.

In distribution of power supply, priority must be given to fighting drought rather than to industry. Communications departments must vigorously support antidrought struggle in transportation. Financial, commercial, power, and goods supply departments must provide convenience to antidrought struggle.

In short, they must make concerted efforts to win a victory in the antidrought struggle.

5. The province is now in the flood season. While fighting drought, we must make good preparations for preventing floods. The return of Halley's comet and the [words indistinct] sunspot movement this year has caused unusual changes in atmospheric layer and might result in floods in a vast area. Therefore, we must maintain high vigilance against serious floods in the Dongting Lake area and the situation of drought followed by floods, and drought in the south and flood in the north. Whether in the Dongting Lake areas or other mountainous and hilly areas, people must fight drought and prevent flood simultaneously.

/12712
CSO: 4007/428

DOLPHINS RETURN TO CLEANED-UP HUNAN RIVER

OW230214 Beijing XINHUA in English 0044 GMT 23 May 86

[Text] Changsha, May 23 (XINHUA)--The return of dolphins to a major river running across central China's Hunan Province indicates a basic water quality improvement, a local official said today.

Early this month, a local fisherman found a dozen dolphins swimming in the Xiangjiang River, where they had not been seen since the late 1960s. His discovery was soon ratified by the local authorities.

"After years of concerted efforts, the water quality in most sections of the river have been raised to meet the state standard for drinking water," said Zhou Shanli, director of the Hunan provincial environmental protection bureau.

The water deteriorated in the 1950s, when more than 1,000 new factories and mines went into operation along this 850 km river.

A comprehensive pollution-control program was carried out after the state enacted an environmental protection law in 1979.

A report by the Hunan environmental department shows that the oxygen content of the river is about 85 percent, suitable for more than 100 fish species to thrive.

According to Zhou, the state and provincial authorities, as well as local enterprises, have spent over 200 million yuan and built over 2,400 pollution-control projects along the river in the past five years.

As a part of the cleanup program, officials also closed or moved away about 500 factories which "caused serious pollution."

The provincial government has asked all the newly built projects, large or small, to perfect their pollution-control equipment before starting operation.

With the help of 170 water-quality monitoring stations along the river, the Hunan environmental protection bureau was able to fine enterprises for discharging untreated waste water into the river.

The fines were used for water pollution control projects, Zhou said.

/12712
CSO: 4020/345

DEVELOPMENT OF RAMIE PRODUCTION IN PROVINCE NOTED

Changsha HUNAN NONGYE [HUNAN AGRICULTURE] in Chinese No 1, 1 Jan 86 p 19

[Article: "Raise Quality, Stabilize Ramie Production in Hunan"]

[Text] In the last 2 years, because of the development of the flax-spinning industry and changes in the international market, the demand for ramie has been steadily growing. The price of raw ramie has consequently doubled. According to October 1985 statistics, in 1985, 1.5 million mu of land was used to raise ramie, an increase of 154 percent over 1984. Estimated total output is for 1,505,000 dan, an increase of 45.5 percent over 1984; also in 1985, 450,000 mu of ramie were cultivated, twofold that of 1984. Total output is estimated to be 460,000 dan, which will be tops in the nation.

The eight flax-spinning plants in Hunan at Zhuzhou, Yiyang, Yuanjiang, and Dongting require 530,000 dan of raw ramie; if you add the cotton yarn spun together with it, the total amount of raw flax needed for domestic use and export total more than 800,000 dan. In 1985, though cultivation was expanded by more than 300,000 mu, new flax production was low and raw flax still tended to be in tight supply. According to our understanding, at present various areas are making serious headway in expanding flax production and in some regions of concentrated ramie production, there are plans to double the area under cultivation. A great effort is also being made in scattered areas of flax cultivation to expand. We believe that production schedules are necessary to meet the market demand for crops like ramie that require several years of growth. Hunan currently grows 450,000 mu of ramie, and this year's total output may reach from 900,000 to 1 million dan. That will not only satisfy the present needs of the spinning industry in Hunan, but there will even be a surplus. From an international perspective, most of China's ramie products pass through the Hong Kong entreport and by and large are marketed in the United States. Recently, the U.S. Senate and House of Representatives passed a bill limiting the import of textiles (including flax and silk). If this bill is enacted, China's textile exports will be severely affected. Hunan's flax-spinning industry accounts for 40 percent of the total in China, so the damage would be very heavy. Last year, the price of ramie was two- to threefold higher than the original price set in the national plan. This is an extreme phenomenon. If foreign trade channels are blocked, this kind of situation will not last long. Furthermore, as the quality of Hunan ramie declines, manufacturing costs will rise, lessening its competitiveness. Consequently, it is necessary to develop ramie production based on demand information and avoid rushing headlong into action which could result in overproduction.

Besides proper planning of ramie production based on market information, in order to take advantage of the excellent conditions in Hunan for ramie production, attention should be paid to the following two points:

1. Quality Must Be Controlled: Certain areas must continue to grow certain varieties and it is crucial to adopt methods of cloning (such as gieya [0434 5370], nenshao [1282 2744], and auxiliary budding) of ramie. In counties cultivating more than 50,000 mu, ramie production should be developed in steady steps, but it must not be done in a madcap fashion. Energy should be focused on improving the purity of varieties, raising per unit area yields and balancing old and new ramie growth.

2. Ties Between Factories and Counties Should Be Instituted: Factories are the digestive system for raw ramie; if factories and counties institute ties and sign medium- and long-term contracts for the sale of a fixed volume of output, this can guarantee a supply of raw materials for factories. In addition, effective measures should be actively adopted to get a handle on information and to take advantage of each and every avenue for furthering foreign sales. In this manner, ramie production in Hunan will be in a position to succeed.

13030/12781
CSO: 4007/335

BRIEFS

RAMIE TECHNOLOGY DEVELOPMENT CENTER--Beijing, May 22 (XINHUA)--Today's economic news in brief (1): Ramie Technology Development Center Opens. A ramie technology development center offering nationwide help on ramie production from planting to processing has opened in central China's Hunan Province. Hunan is the leading ramie producer in China, which leads the world in ramie planting and processing. [Text] [Beijing XINHUA in English 1128 GMT 23 May 86 OW] /8918

CSO: 4020/337

DECLINE IN JIANGSU TEA OUTPUT ANALYZED

Beijing NONGMIN RIBAO in Chinese 25 Feb 86 p 2

[Article: "Analysis of Tea Development in Jiangsu"]

[Text] In 1985, the tea market in Jiangsu province experienced three ups and three downs (output was up, but major purchasing channels diminished; sales were up, but reserves were down; prices went up, but quality came down).

The area under tea cultivation remained stable and production of tea leaf continued to grow.

In 1984, tea gardens occupied 230,000 mu of land in Jiangsu and output was 155,000 dan; last year tea output reached 174,000 dan and it is estimated that production will reach 180,000 dan in 1986.

With the opening of numerous business channels, the volume of tea purchased by distribution and sales agencies fell off.

Since tea policies were liberalized, many business channels have opened up and tea purchased by the tea management department sales distribution system has correspondingly fallen. In the past, domestic sales facilitated through purchases by the sales distribution agency generally accounted for 70 percent or more of the tea output, but at present it has fallen to around only 30 percent.

Output of scented teas has declined, resulting in supply being far short of demand.

Scented tea produced in Jiangsu is highly fragrant, the taste is pure and it is very famous as well; it is sold in 19 provinces and cities throughout China. This year superior flavored, first- and second-grade Jasmine tea are varieties in short supply and great demand; other grades of tea are also selling well. Production capability for the three processing plants for scented tea in Suzhou, Nanjing, and Yangzhou is about 160,000 dan. Two years ago, on the average 100,000 dan of scented tea was produced and each year about 90,000 dan of scented tea was transferred elsewhere. Raw tea is generally transferred in accordance with the national plan, and after flower aromas are added in, it is then transferred to sales regions also according to planning.

In recent years, because output of fragrant flowers has fallen, there has been a reduction in the volume of scented tea that is processed. For example, in Nanjing in 1984, output of scented tea fell 7,000 dan from the year before, a 40-percent decline.

The remaining problems are:

Tea leaf yield per unit area is low; thus new varieties are urgently needed. According to province-wide calculations, in the present tea-growing area, average per-unit-area yield is only 67 jin. Although that is higher than the national per-unit-area yield of 51 jin, it is far behind some tea plantations in other parts of the world that produce 200 to 300 jin per mu. The lower per-unit-area yield has a direct effect on economic results. The reasons for the situation are that tea technology is seriously inadequate and good varieties have not been widely disseminated. According to statistics compiled by the Tea Research Institute of China's Agricultural Science Academy, currently, areas all over China are straightening matters out: More than 40 excellent tea varieties are being widely disseminated and more than 50 new bred varieties have come out, but until now these superior varieties have not undergone any areawide testing.

Sources for scented teas are in short supply and low-grade teas are selling slowly, causing stock to accumulate. In recent years, the preference for drinking scented teas has grown and the proportion of scented tea sales to overall tea sales has grown from year to year. In 1983, it accounted for 26.4 percent of sales; in 1984, 31.12 percent and in 1985, 41 percent. Yet production of scented tea in Jiangsu has been dropping.

Prices have risen, but quality has declined. Since tea policies have been liberalized, the price can fluctuate. This has brought forth uncontrolled prices and competition to purchase teas that are famous or in short supply; it has also resulted in a lowering of quality. This year spring tea is priced 15 to 20 percent higher throughout the province. The nation's most famous tea, the Biluochun produced in Dongting in Wu County, all in all reflects the tremendous decline in quality; neither the fragrance nor the appearance can compare to last year's.

13030/12781
CSO: 4007/335

AFFORESTATION SUCCESS REPORTED IN XUZHOU CITY

OW020618 Beijing XINHUA in English 0542 GMT 2 Jun 86

[Text] Nanjing, June 2 (XINHUA)--Xuzhou now has become the first afforested city on the North China Plain after 10 years' efforts.

The city, with six suburban counties, lies on the northern tip of Jiangsu Province. It used to be a grain-shortage region, vulnerable to floods and droughts, for the ecological balance had been destroyed throughout the centuries, a city official explained.

However, the appearance of Xuzhou has changed. Now 15.3 percent of its total area is green, compared with eight percent in late 1970s.

During their struggles against the natural conditions, the residents finally realized that the only way to change is to re-cover the city with forest, he said.

Afforestation has been listed as part of the agricultural plan since the late 1970s. Every county has used five percent of its farmland to grow saplings each year.

Meanwhile, all government departments, factories, schools and troops stationed locally are involved. The trees flanking the highways and river were planted by the city's transport, water and electricity departments.

The efforts have paid off. Grain output has increased at a speed of 13.3 percent annually since 1977. This region now sells 1.25 million tons of grain each year. And 65,000 tons of fruit and nuts is harvested every year.

And the city cannot only satisfy its own timber needs, but also supply coal mines with pit props.

/12712
CSO: 4020/345

ILLEGAL LAND USE STILL PROBLEM IN PROVINCE

OW310621 Nanchang Jiangxi Provincial Service in Mandarin 1000 GMT 28 May 86

[Text] A provincial meeting on land management was held in Nanchang today. The meeting called on various localities to conscientiously implement circulars issued by the party Central Committee and the State Council, strengthen land management, protect land resources, and raise the productivity and utilization of land.

The meeting noted that since the convocation of the 3d Plenary Session of the 11th Central Committee, land management work in the province has been strengthened and some progress has been made in economically using land and prohibiting wanton occupation and use of farmland. However, the meeting pointed out that the problem of wanton occupation and use of land has still not been completely solved.

In some localities, the situation of wanton occupation and use of farmland is still quite serious. Total farmland acreage in the entire province is being reduced by an average 60,000 to 70,000 mu each year. Corresponding to the increase in population and development of the national economy, land for urban and industrial use must be constantly expanded, more mines must be built, rural housing must be improved, and roads must be widened and extended. All these factors necessitate the continuous use of more land.

This problem concerns the great cause of building the four modernizations and the livelihood of future generations. Leading cadres at various levels must never overlook this matter of fundamental importance. They must heighten their understanding and strengthen leadership over land management in order to meet the demands of reform and opening to the outside world.

The participants of the meeting summed up and exchanged their experiences and lessons in land management and studies and made arrangements for land management work. The meeting set forth five specific requirements:

1. It is necessary to conscientiously study and disseminate central circulars and to publicize land laws and regulations so that everyone is aware of them.

2. It is necessary to do well land investigation and registration work from start to finish before the end of October this year.

3. It is necessary to strengthen land management by taking effective administrative, economic, and legal steps.

4. It is necessary to conscientiously do a good job in surveying land resources and in data processing work so as to provide information for the scientific management of land.

5. It is necessary to establish and improve land administration organizations. The provincial land use and management bureau will be the provincial government organization in charge of land administration. The provincial bureau will assume overall responsibility for supervising land use and urban and rural land administration work in the entire province. Various prefectures, cities, counties and districts should also set up land use and management bureaus according to the principle of unified control over land use. Various townships and towns may have land administrators to be assigned by county, city, or district people's governments according to the need. Various enterprises and departments in charge of these enterprises should also set up organizations and appoint people to work on a full-time basis in this regard.

/12712
CSO: 4007/428

GRAIN PRODUCTION ISSUES DISCUSSED

Shenyang NONGYE JINGJI [AGRICULTURAL ECONOMICS] in Chinese No 1, 13 Feb 86 pp 32-34, 38

[Article by Yu Zhenguo [0060 2182 0948] of the Liaoning Provincial Party Committee Policy Research Office: "Exploring Issues Related to Liaoning Grain Production Policy"]

[Text] Grain is a peculiar commodity. In particular, if problems arise with grain in an industrially developed province such as Liaoning, the inevitable result will be a slump in industry and social unrest. Therefore, throughout the process of readjusting the rural industrial structure, we must give extra special attention to grain production. Henceforth, what kind of guiding policy should Liaoning set with respect to expanding grain production? One view holds that since grain production exceeded sales provincewide the last 2 years, from now on we should promote the target of being wholly more than self-sufficient; another view holds that there were low-level temporary surpluses the last 2 years, and that in the wake of a great expansion of the livestock industry, the grain requirements have become greater and greater, and therefore it advocates a policy of adhering to basic self-sufficiency; a third view holds that since industry constitutes a large sector in Liaoning, since the urban popularion is large, cultivated acreage is small and the major avenue to wealth in the rural areas lies in economic diversification, and since there should be a uniform balance of grain throughout the nation, we need not stress self-sufficiency within the province.

The guiding thought and objective of the struggle which determine the development of grain production in Liaoning must proceed from the characteristics of the province, and take into account the following basic principles: 1. We must respect natural law and adhere to the principle of planting according to local conditions; we must consider the different natural conditions of the various districts in Liaoning and give full play to the strengths of each locality. 2. We must respect economic law, mainly the law of value and the principle of expanding commodity production. 3. We must take fully into account historical development and the present situation, and through them seek an understanding of regularities on which to base our approach to problems. 4. We also must consider the strategy for developing the rural economy nationwide and get acquainted with the agricultural development situation throughout the country.

The nationwide gross annual output of grain currently has stabilized at about 800 billion jin, there are ample grain reserves to meet consumption needs for a year, and a greater and greater number of provinces throughout the country are able to ship grain out. However, in the wake of population increases, the processing industry for agricultural products, and the livestock industry in particular, need to undergo a relatively large expansion. By the end of this century, grain per capita in the PRC will be roughly between 800 and 900 jin, and at most will not exceed 1,000 jin; as such, the overall outlook is that we will not be too well off in terms of grain nationwide. Relying on shipping grain in from outside the province to meet daily needs not only is undependable, but is uneconomical and undesirable as well. Therefore, from now on Liaoning should base itself on fundamental self-sufficiency in grain, and by the end of the century more than 90 percent at least of the grain we depend on must be produced within the province.

Is Liaoning's strategic target of basing itself on a fundamental self-sufficiency in grain attainable?

According to data supplied by concerned departments subordinate to the province, historically grain production and consumption for the province as a whole has been more or less as presented in Table 1.

It can be seen from Table 1 that since the founding of the PRC, grain production in Liaoning has undergone a slow expansion. From the general pattern of change we can figure the rate of future expansion and the targets obtainable therefrom.

Grain acreage has declined year after year, and must be appropriately stabilized. There was an average annual reduction of 520,000 mu from 1949 to 1979; from 1980 to 1984, the average annual drop was 370,000 mu; this year, however, the reduction amounted to 3.26 million mu. It is estimated that there could be a slight increase next year, and planted acreage may reach 44 million mu, with enough hard work. But there are still certain cultivated slopes throughout the province which must be withdrawn from farming and given over to forestry and fruit growing. From now on we should adopt rigorous control measures, counter reductions with increases, and strive to realize an average annual reduction of 300,000 mu after 1987, and by 1990 acreage could be maintained at about 43 million mu; by the end of the century we should be maintaining approximately 42 million mu.

Grain yields have increased year after year, but hereafter the rate of growth will not be too rapid. The average annual increase in gross output was 3.7 percent from 1949 to 1979, and there was an average annual increase in unit area yields amounting to 4.6 percent; the average annual increase in gross output from 1980 to 1984 was 3.9 percent, and the average increase in unit area yields was 4.9 percent per year. With a basically stable grain acreage, the major avenue to increased output from now on will be through unit-area yields. Although about 60 percent of grain acreage throughout the province still consists of low- and medium-yielding fields whose unit output is less than the average, if there are no breakthrough measures it will be difficult to realize relatively large increases.

Table 1

YEAR	GRAIN ACREAGE (MU)*	AVERAGE PER-MU YIELD (JIN)	GROSS OUTPUT (100 MILLION JIN)	GROSS CONSUMPTION				PRODUCTION MINUS CONSUMPTION
				TOTAL	RURAL GRAIN RATIONS AND SEED STOCK	SALES TO CITIES	FEED	
1949	6,544	124	81	82	58	14.6	9.4	- 1
1952	6,346	171	109	150	80	50	20	-41
1965	5,757	233	134	162	91	57	14	-28
1976	5,087	427	217	238	129	77	32	-21
1979	4,990	479	239	243	126	87	30	- 4
1980	4,831	506	244	247	132	90	25	- 3
1981	4,709	493	232	253	122	108	23	-21
1982	4,718	488	230	251	121	107	23	-21
1983	4,758	624	297	253	134	93	26	+44
1984	4,648	613	285	262	130	102	30	+23
1985	4,332	463	200	270	133	105	32	-70

*sic; probably 10,000 mu

Therefore, figuring gross output during the period of the Seventh 5-Year Plan increasing at about 3.5 percent per year, and unit-area yields increasing about 4 percent annually, gross output by 1986 will total 28 billion jin, and by 1990 gross output will amount to 32 billion jin. The rate of expansion in the following 10 years probably will be somewhat slower, and the amount of increase somewhat smaller; roughly speaking, if gross output increases at an average annual rate of about 1.2 percent and unit-area yields increase in the neighborhood of 1.5 percent yearly by the end of the century grainfield acreage will stabilize at 42 million mu, unit yields will reach 860 jin, and gross output will amount to 36 billion jin.

Total social consumption has increased year by year, a greater and greater amount of which is utilized by the livestock industry. Total social consumption from 1949 to 1979 increased 3.7 percent per year, and from 1980 to 1984 the average increase was 2.1 percent. Of the "three retains" in the countryside (grain rations, seed, and feed), the amount of grain used for seed did not increase--it was just a matter of changing over to improved varieties. Grain rations for the peasants have increased as a result of population increases. Based on the present family-planning policies, the total population of the province will increase 14 percent by 1990, with a natural annual rate of increase of 1.3 percent; by the year 2000 the increase will be 23.7 percent, or a natural annual rate of increase of 1 percent. If the average annual rate were 1.2 percent, grain rations to be consumed by the peasants would have to increase approximately 100 million jin per year from now on. Feed grain currently comprises only about 14 percent of total grain output of the province, which is less than the national average of 15 percent. There will be a relatively large expansion of the livestock industry during the Seventh 5-Year Plan. Based on a program committing 30 percent of the total amount of grain nationwide by the year 2000 for feed, we figure that by 1990 feed grain for the province as a whole will constitute about [illegible] percent of total grain output; at an average annual increase of 12.9 percent, feed grain will amount to 6.5 billion jin by 1990. Figuring feed grain constituting about 30 percent of total grain output for the following 10 years, feed grain will amount to about 10.8 billion jin by the end of the century. Total sales to the cities (which includes grain resold by the state to the place of production, and grain used for food processing and beverages) mainly is conditioned by population changes; at a natural rate of increase in the population of 1.2 percent, and allowing for other factors, from now on an increase of 100 to 200 million jin per year in grain will be required.

Based on the rate of change in expansion noted above, the provincewide situation for grain production and consumption for the Seventh 5-Year Plan, and by the end of the century, would be as presented in Table 2.

Table 2

YEAR	GRAINLAND ACREAGE (10,000 MU)	AVERAGE OUTPUT PER MU (JIN)	GROSS OUTPUT (100 MILLION JIN)	TOTAL CONSUMPTION (100 MILLION JIN)			
				TOTAL	OF TOTAL:		
					RURAL CONSUMPTION AND SEED STOCK	SALES TO CITIES	FEED GRAIN
1986	4400	636	280	280	140	100	40
1987	4370	664	290	290	141	103	46
1988	4350	690	300	300	142	105	53
1989	4320	718	310	310	143	107	60
1990	4300	744	320	320	145	110	65
2000	4200	860	360	373	150	115	108

If those projections can serve in a fundamental way as the basis for our considerations, then during the Seventh 5-Year Plan and the following 10 years we will only be able to maintain a basic balance of production and sales of grain in Liaoning; in years of bumper crops, there would be self-sufficiency or perhaps slight surpluses, while lean years would require somewhat reduced allowances. By the end of the century, the self-sufficiency rate would have to be at least 90 percent. Therefore, to propose being wholly more than self-sufficient every year is unrealistic; however, in fact, there is the possibility of a basic self-sufficiency, and not to count on self-sufficiency within the province, rather mainly to depend on nationwide equilibrium and large-scale transprovincial transfers and shipping is both unnecessary and unrealistic.

Before deciding on a policy of basic self-sufficiency in grain for Liaoning during the Seventh 5-Year Plan and until the end of the century, and throughout the process of readjusting the industrial structure in the rural areas, we must pay special attention to satisfactorily handling the following issues:

1. Appropriately stabilize grain acreage. Cash crops, such as oil crops, cotton, tobacco, and vegetables are currently in balance, for the most part, throughout the province, and can basically be stabilized; fruit tree acreage, mainly, must be significantly increased; and some poor land on mountain slopes must be retired from cultivation in favor of forestry and animal husbandry. For this reason, there is a tendency for grain acreage to continue to drop, although it should be relatively stable for a few years. That is to say, aside from a few districts carrying out some necessary readjustments, under normal circumstances we should maintain a grain and pulse acreage of 43 million mu during the Seventh 5-Year Plan. We must resolutely control which areas are taken over by capital construction and nonagricultural production, and in principle not allow them to encroach on grain fields; from now on we should implement the principle that whoever encroaches on farmland must create new land to replace it. We must employ economic, administrative, and legal measures to pursue a system of land compensation.

2. Emphasize the construction of commodity grain bases. In addition to the commodity grain base counties set up by the province, each municipality, county, and district also should establish within its own purview a set of key grain-production townships, towns, and villages, respectively, thus forming throughout the province a multilayered collection of commodity grain bases with commodity grain base counties as the principal part and including within it the key grain-production townships, towns, and villages of the noncommodity grain base counties. If an additional 100 commodity grain base townships and towns are established provincewide over and above the present commodity grain bases, commercial grain will basically be guaranteed for the whole province. Moreover, we must accumulate funds, materials, and technical personnel and introduce them in these regions, and adhere to a policy of support.

3. The way to expand grain production is to strive to increase unit output through intensive farming. Grain yields provincewide averaged 613 jin per mu in 1984; in 1990 they must reach 744 jin, which means we must achieve a 4-percent annual increase. This rate is slightly less than the average rate of increase over the past 36 years. By the year 2000, average per-mu yields

must reach 860 jin, with an average annual increase of 1.5 percent. Although the rate of increase for both these periods is lower than in the past, because the base figure is comparatively higher at the present time, it will not be easy to realize these targets. For this reason, we must work hard to increase investment, select and use improved varieties, and till the land in a scientific manner.

4. Actively expand paddy field acreage. This will serve both to increase output and raise quality, and to increase economic return and improve the standard of living; this is one of the directions for readjusting the planting structure in the province. During the Seventh 5-Year Plan, paddy field acreage should increase 600,000 mu per year provincewide, and must amount to 10 million mu by 1990, with output reaching 10 billion jin; by the end of the century, acreage must total more than 10 million mu, and output must reach 12 billion jin. At that time there will be 280 jin of paddy per capita.

5. We must pay special attention to the issue of motivating the peasants to grow commodity grain. Enthusiasm is lacking among the grain farmers at the present time and this is chiefly manifested in: a) a continuous decline in investment in materials and chemicals; b) extensive cultivation; and c) a cessation of grainfield capital construction. Major reasons for this are a drop in grain prices, an increase in the price of the means of production, high costs, and low returns, which has caused commodity grain to lose its attractiveness to the farmers. Just as the peasants say: there is much to worry about in growing grain, it is exhausting, and you derive little income from it all; anything is better than growing grain. In the long term, grain prices must rise; we must adopt necessary economic measures at the present time as well. First, expand purchase quotas, and basically we should purchase all the grain the peasants sell at an "inverse 3:7" ratio; second, rigorously control rises in the price of the means of production, reduce intermediate links in operations, and we should employ comprehensive management methods for major means of production, and implement a policy of linking means of production awards with commodity grain; third, where conditions warrant, we must adhere to the method of industry assisting agriculture; fourth, do not apportion the burden on the basis of field acreage; fifth, where conditions warrant, we also could try out the method of "regulating funds," such as subsidizing each jin sold with a little money; sixth, recommend the state increase investment in agriculture; and so forth. In addition, we must enhance services, and intensify, socialize, and commercialize grain production.

12513/5915
CSO: 4007/341

UN-AIDED NINGXIA PROJECT COMPLETED EARLY

OW291248 Beijing XINHUA in English 1227 GMT 29 May 86

[Text] Yinchuan, 29 May (XINHUA)--A United Nations-aided shelter-belt project in Xiji county in the Ningxia Hui autonomous region's Loess highlands has been completed ahead of schedule, according to regional officials.

So far, 104,000 hectares of trees and grass have been planted and survived in this formerly poor county--17.7 percent more than the planned number.

The project, aimed at controlling soil erosion and promoting agriculture, started in 1982, based on an agreement signed between the Chinese Government and the World Food Program (WFP) in 1981.

The WFP provided Xiji county with 23,268,000 U.S. dollars-worth of grain and other food for the project, which called for planting a total of 43,000 hectares of trees and 45,000 hectares of grass by 1986.

Now the area of eroded soil is 62.4 percent less than in 1981. The new forests and grassland have provided the peasants with 600,000 tons of firewood since 1983. Last year, 18,000 tons of grass was reaped, and the number of livestock is an all-time high.

This spring, 20,000 hectares of new forest and grassland with a survival rate below 85 percent was reseeded or replanted, and the grass breeds unsuitable for the natural conditions there have been changed.

Local authorities have also taken measures to protect new forest and grassland. Every township and village has a special committee in charge of the protection. There are 500 forest rangers in the county.

/9738
CSO: 4020/340

HE KANG DISCUSSES AGRICULTURAL DEVELOPMENT

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 1, Jan 86 pp 14-18

[Article by Minister He Kang of the Ministry of Agriculture, Animal Husbandry, and Fishery: "Strategies for Agricultural Development: Some Issues in Developing Qinghai's Agriculture, Animal Husbandry, and Fishery"]

[Text] We conducted a survey and study of Qinghai's farming, animal husbandry, and fisheries over a period of 12 days during August, 1985. We visited farmers and herders, grassroots cadres, and S&T personnel and held discussions with leading cadres in the relevant departments in Huangzhong, Huzhu, Haiyan, and Gangca counties and the city of Geermu. This survey gave us an initial understanding of Qinghai's unique natural features and the condition of farm, livestock, and fishery production. There has been conspicuous growth in Qinghai's farm, livestock, and fishery production, including township and town enterprise and research and education in these areas in recent years and a degree of improvement in the livelihood of its farmers and herders. Rural villages and grazing regions throughout the province have entered a new stage in the planned development of commodity production.

Under these new circumstances, further study of how to exploit the strengths of Qinghai's grazing regions, how to bring life to the farm, livestock, and fishery commodity economy, and how to effectively overcome the difficulties encountered in the rural villages and grazing regions in opening up and building Qinghai is of great significance.

I. Proceeding from Actual Conditions in Qinghai To Further Delineate Guiding Principles for Building Farm, Livestock, and Fishery Production

With this systematic survey and study (of both resources and administrative divisions) and review of historical lessons as a basis, a delineation of guiding ideology and policies for building production are extremely important issues in unifying understanding and action and developing the rural commodity economy in a planned and paced fashion.

This is first and foremost due to the fact that farming, livestock, and fisheries hold a central position in the provincial economy.

Qinghai has over 40 million people, of which more than 30 million are farmers and herders. The current level of production for farm and sideline products and of self-sufficiency is low, and grain on hand is upward of 500 jin per capita. What the state gets primarily is somewhat more than 30 million jin of wool. By the end of this century and the beginning of the next, Qinghai will become one of the nation's prime regions for economic development; and this economic development cannot be ensured unless farm, livestock, and fishery production grows and the problem of supplying living essentials is solved. At the same time, Qinghai is the more favored segment of the Qinghai-Xizang plateau. Development of farming, livestock, and fisheries in Qinghai may have a direct impact on developing the Xizang economy. Thus, agriculture is going to be the foundation for developing the province's overall economy in both the short and the long term and should be given priority.

Second, we must proceed from Qinghai's unique climatic, resource, economic, and social features in setting out policies for developing the farm, livestock, and fishery economy.

Qinghai is situated on the Qinghai-Xizang plateau. The eastern agricultural portion of the province is on the edge of the loess plateau. Conditions are dry and alpine and rather unfavorable. The entire plateau comprises Xizang's 1.2 million square km and Qinghai's 720,000, along with minor portions of Sichuan and Yunnan, for a total area of 2.3 million square km. The plateau's farming, animal husbandry, and fishing is unique. Almost half (above 5 million) of the 85 percent of the world's yaks which live on the plateau are in Qinghai. We are behind in studying farming, animal husbandry, and fisheries in arid alpine regions and have still not come up with a realistic and more effective way of dealing with them. Better study in this area has significance for the northwest and for the world at large as well.

Qinghai used to have a closed, self-sufficient or semi-self-sufficient economy with few connections with the more developed economy of the seacoast. Now we are gradually moving to a more open economy and must further unstructure our thinking and broaden our perspective. The focus should be deregulation. The pace of our revitalization and reform should be larger. Policies must be more flexible. Deregulation will bring prosperity while closing up will only shrink the economy. The province has financial problems. Most of its herders and farmers are rather poor. Government assistance is limited. Turning poverty into affluence cannot come quickly. Seeking any old doctor for an illness will not do. Songduo Village of Huzhu County borrowed 30,000 yuan and collected 4,000 yuan more to enlist over 200 workers to mine metals in Chaidamu, which was a complete failure. This should be a lesson. Qinghai's economy needs to move from a "transfusion" model to a "blood-building" model, to revitalize the entire economy. Ways should be found to gradually shift from subsidizing the economy to support for development of local commodity production and construction. Qinghai's unfavorable climate and insufficient economic base, combined with the serious degradation of resources which has taken place and the deep and widespread impact of religious efforts, make changes in the face of poverty and development of a commodity economy very difficult. For this reason, building production can only proceed through hard work and measured efforts from actual circumstances to focus conscientiously on a number of major areas. Comparisons with the developed economy of the cost are inappropriate. Otherwise, speed will bring no results.

Third, Qinghai's policies on farming, animal husbandry, and fisheries should highlight the livestock industry. The most outstanding positive feature of the province is the fact that 94 percent of its total area of 720,000 square km is grazing lands. This means that animal husbandry should be the primary element of the entire provincial economy, which can then link up with forestry and be integrated with farming, industry, commerce, construction, transportation, and services for a comprehensive rural economic structure. Of course, measures must suit local conditions and stress certain aspects. Different types of local leadership will require different policies. Gradually, the livestock-processing industry and township and town industry with local, ethnic features should be developed.

Once a guiding ideology for farm, livestock, and fishery work and policies for building farm, livestock, and fishery production have been outlined, they must be further probed and improved through practice. Progress can be stable and major mistakes avoided only if methods are appropriate. In addition, planning from now on cannot just be a matter of goals. Commodity production bases and export moneymaking bases must be build in accordance with the need for improved product quality and variety and integration of product lines. There must be proposals and measures which focus on economic returns. Ultimately, commodities should be produced which suit both the domestic and the foreign market.

II. The Structure of Rural Production Should Be Readjusted in a Planned and Paced Fashion for Development of Commodity Production

The most pressing issue to be faced in restructuring Qinghai's rural production structure is the grain question. Efforts to upgrade self-sufficiency in grain and finding a resolution of the grain problem is the basis for developing the economy of both the rural villages and the grazing regions. It would be unrealistic both to demand that Qinghai become self-sufficient in grain and to absolve it entirely from such a requirement. The current per capita grain reserve is just above a mere 500 jin, which is very low. There is still the possibility of increasing grain production proceeding from actual circumstances. For grain and forestry departments to disseminate dry-farming techniques, upgrade unit yields, build integrated commodity production bases which focus on supplying grain, and work to improve the province's overall self-sufficiency in grain is appropriate, given Qinghai's actual circumstances.

From the national standpoint, the focus should be upon balancing shipments in and out at the provincial, prefectural, or city level of planning and efforts made to steer away from shipments in gross. The entire northwest has proper conditions for self-sufficiency in grain. If major shipments of grain are made over a long period, this will inevitably increase the capacity of a region to accept such shipments. Shipping itself is a problem as well as one which is not favorable to fostering the development of the local farming and livestock industries.

Qinghai is vast in area, but the amount of arable land is small. Attention should be paid to ensuring that the amount of arable land remains relatively stable. The policy put forward by the provincial agricultural and forestry department for "stability, withdrawal, and effectuation" on arable land to bring it to a stable level of 8 million mu is a correct one. If there were 0.6 mu of watered land for each person in the province and each mu has a yield of between 800 and 1,000 jin, the grain problem would be basically solved. In the alpine, "Nasoshan" district, farmland should be turned back to forest and pasture in a planned fashion. Some wilderness in the Chaidamu basin can be cultivated, but attention should be paid to managing the land. China's land has no legally set price, and unauthorized possession is a rampant problem. If Qinghai is to increase its self-sufficiency rate for grain, it must first protect its arable land. It should also pay attention to highland barley yields, which is a unique product of nomads. It should also further study the questions of movement and balancing grain and feed in the northwestern districts.

Another important issue in readjusting Qinghai's rural production structure is the livestock question. Just as farming areas cannot rely entirely on grain production, the grazing regions cannot rely completely on animal husbandry, but should link it up with industry and commerce. and develop production of meat, hides, and wool. The current picture in grazing regions shows basically a predatory form of herding with overgrazing and a retreat of the grasslands. This predatory model must give way to an ecological one. The emphasis on the number of head must give way to one on economic results. This will bring about a beneficial ecological cycle. A high degree of attention should be paid to improving stocks, grassland construction, and scientific raising. For a long period in the past we have paid attention to varieties of grains, but not to breeds of domestic animals. In this respect, we should learn from abroad.

Grassland establishment cannot be merely a matter of enclosures. This is just the first step. A whole series of measures must follow, such as improving grazing grasses and marking sectors for sequential grazing. The pasture lands currently enclosed are all the same: splendid achnatherum. There is a shortage of leguminous plants, and planting of alfalfa should be considered. Seasonal grazing should be developed based upon Qinghai's special features. Herders now weigh their wealth strictly from how many head they have, and have an aversion to selling them off. This leads to the "well-fed in the summer, fat in the fall, lean in winter, and dead in the spring" syndrome. Why can they not birth in the spring and sell commodities in the fall? All that is needed is that a certain number of dams be maintained. Ireland has a climate much like Qinghai. Wheat does not ripen and as a result the emphasis is on animal husbandry, which has become seasonal. Animal husbandry should be the centerpiece of Qinghai's developing commodity production. Lambs and lambswool (both coarse and semifine) should be vigorously developed commodities. Both have a large domestic and foreign market demand. For example, there is a strong market abroad for live lambs; and efforts to find that market should be made.

Special emphasis should be placed on yak development. Qinghai has few commodities which it can send forth as yet. However, yaks are a special product of the Qing-zang plateau. Dairy cattle can also be developed to a certain extent, but primarily for self-sufficiency. A product line should be developed for yak meat, hides, wool, and hides which can be processed for export. This is an area in which Qinghai has no competition. Right now the main problem is that people and calves are in competition for milk, the climate is alpine, and the calves mature very slowly. Studies should be done on whether breeding stocks can be improved in part and interbreeding between yaks and cattle to produce pianniu with their more abundant milk to supply human needs so that yak milk can be used to feed the yak calves. Other methods should be studied as well, such as breeding yaks in the west and raising them in the east, bringing the grazing regions and farming regions together.

Third, there is the question of developing unique, high-quality economic crop products. Rape which is low in erucic-acid has the possibility of becoming a major export commodity. Japan has offered to import 30 million dan of rapeseed from China. In the past they were importers of our petroleum and coal. Now the world situation has changed and they require less petroleum and coal but more of our farm products. The Mitsubishi Corp alone has offered to import 10 million dan of rapeseed with the requirement that erucic acid content be less than 1 percent. Qinghai is suited for growing rape. Yields are high and there is good varietal separation and good environmental conditions. With these specific characteristics, if strains are improved, Qinghai can become a base.

Maya [7456 3660] broad beans are an export product and bases can be established depending on market demand.

Apples: The color and luster of Qinghai's apples is rather good; the problem is transportation. External sales are rather difficult. Consideration should be given to setting up a base in Longyangxia region for apple production geared primarily to the local provincial market.

Fourth, aquatic product production should focus on freshwater breeding and appropriate catches. Protection of aquatic product resources should be beefed up; and studies in such areas as the use of geothermal energy and thermal energy from industry for aquatic production in alpine areas have a great deal of potential.

Fifth, construction materials, construction, and mining industries which make the most of local advantages, township and town enterprises with ethnic features, processing of livestock products, and tourism in grazing regions should all be developed to promote a shift of the agricultural and herding labor force into other areas.

Nothing can hinder the trend toward development of township and town industry; and this will have a tremendous impact on traditional production and lifestyles in the farming and herding regions. We can merely provide guidance and support. We cannot meet every development with so many controls that they stifle the enthusiasm of these enterprises. We should let township and town enterprises rely on their own vitality to carry out technical transformation. Joint and individual household and collective operations should have even more life. We should vigorously develop tertiary production and build up small towns in farming and grazing regions.

III. Special Attention Should Be Paid to the Study of Experiences in Resolving the Problems of Poverty Areas

The question of poverty in the eastern region should be tied to exploitative construction in the Chaidamu basin. The two should be treated as a whole in overall planning. Some of the poorer mountain regions of the east have few resources and excessive population. Natural conditions are poor and the peasants are just about out of the means to live. One comparatively feasible method would be to move from turning poverty into affluence to using the advantages of the west to aid the poverty of the east. There is already precedent for this method of resolving the problem. East of Dagele in Geermu, conditions are suited for development of irrigated farming by restoration or reclamation of 400,000 mu of farmland. Since 1980, 204 households have been brought in, of which 80 percent were immigrants from the Longyangxiaku district and the other 20 percent are peasants from poor mountain districts in the east such as Luodu, Huangyuan, and Huangzhong. Production has developed rapidly and there has been a major change in living standards.

Of course, such migrations must first be based upon principles of voluntariness. In general, the peasants take up their own responsibilities with the assistance of friends and relatives. Second, the state should provide assistance, primarily in the form of investment in such basic measures as water projects which provide the immigrants with the conditions they need. This type of investment should be conducted after investigations and feasibility appraisals.

Qinghai has also proposed development of animal husbandry near waterways and opening up of the western region through an infusion of external assistance. This will require a feasibility study and report.

Solving the problem of poorer regions cannot be entirely through reliance on state assistance. Rather, it must be mainly based on increasing the strength and vitality of the local economy. Different measures for achieving affluence should be adopted in different regions which will bring together the funds needed to develop local production and solve problems one by one. Mutual assistance and coordination of development between east and west should be encouraged. The respective strong points of the poorer regions and the developed coastal economy can be brought into play by linking their respective economies for joint development. Funds and technology can be borrowed from the economically developed coastal regions to develop natural resources and commodity production in the poorer areas. People can also be enlisted to work, look around, and study technology in the developed areas and then return home to lead the peasants to affluence.

IV. Proceed From Actual Circumstances To Maintain Policies and Principles of Deregulation and Revitalization

I should once again stress that we should proceed from actual circumstances to improve the output-related responsibility system. In Haiyan County, results have been maintained in improving the stock of herds for over 30 years not by selling the young animals to households but maintaining public ownership while they are raised and grazed privately. This not only contributed to the enthusiasm of the herders; it also helped to improve the stocks and economic returns. Still, comrades in Haiyan were feeling the pressure to put a price on the herds for sale to households. In our opinion, there is no need for the responsibility system to be so uniform, and Haiyan should be granted the opportunity to try its own way. Whatever the mode of the responsibility system, it should lead to scientific raising of domestic animals. From this path we cannot retreat.

Secondly, there is the question of deregulation of the price for animal products. The price for wool and cowhide in Qinghai is still unified, and external sales are not permitted. The procurement price for a jin of wool is just above 2 yuan, primarily because the local weaving industry is so backward, economic returns are low, and they cannot compete with the wool-weaving industry in more developed regions. If the price of raw materials were to be deregulated, costs would go up, profits would go down, and this would influence local revenues. This is a policy which actually protects backwardness and constrains development of the local livestock industry, and is not in tune with the spirit of Central Committee Document No 1 of 1985.

From the present standpoint, deregulation of the price of materials for daily use such as meat, eggs, fish, vegetables, melons, and fruits should be relatively easy. It depends primarily on readjustments in the makeup of production itself, and from there comes to involve the burdens on the consumer directly. As far as the consumer is concerned, there can be appropriate subsidies so that they can cope with fluctuations in prices after the reform and assure that the progress of the reform goes smoothly. But price deregulation for production materials and industrial raw materials will not be so easy. It involves the commercial and industrial sectors, and making a high profit on cheap raw materials cannot go on any more. The whole system needs reform. Deregulation of the price of wool is now blocked by the low level of local industry, which must support several tens of thousands of people and also provide local revenues which cannot be reduced. The only way out is to continue unified procurement and prohibition on external sales. In fact, this method will be difficult to continue. Only if prices are deregulated will development of the livestock industry be promoted. If wool output increases extensively and the technical levels of the weaving industry improve, then wool textiles can be sold in high volume at a low margin and the province can improve its income. Right now, intermediate links in wool circulation can be reduced. A portion can consist of direct links between producers and industry to lower industrial costs. It is recommended that the relevant government sectors study the problem from the standpoint of agriculture, commerce, and industry, and come to understand all facets of production costs and the profit-distribution picture. Only if the latter is sensible can coordinated development of the whole industry be promoted. If current problems are to be solved, and we are to proceed from the long-term interests and development of the local economy, then the only route is reform; and if the deregulated industries feel pressure, this is a good thing. Where there is pressure, there is movement and vitality. Only thus can technical transformation and improvement in operational management be accelerated.

Third, there is the question of subsidies. At the present time, the total "three fives" subsidies given to Qinghai by the central leadership amount to 500 million yuan in cash, 500 million yuan in materiel, and 500 million jin of grain--all of which is necessary to support the normal functioning of Qinghai's economy. But as the local commodity economy develops, this subsidy method must also move onward or else it will hinder local production. For example, because there is a subsidy on vegetables, organizations, brigades, and enterprises using large trucks to ship in vegetables take their shipping expenses and losses out of subsidies. When workers buy at low prices, there is no stimulus to the local farmer to develop vegetable production. In another example, Qinghai must, on the one hand, ship in a great deal of grain from outside at the same time as Xiangride and Geermu farms cannot sell hundreds of thousands of jin, and there are rumors of a glut in pork and eggs. Of course, the quality of the grain brought in is better than the local product. But the more that is brought in, the more it hampers local agriculture from improving variety and quality. Thus, we feel that a method which involves a link of material and financial subsidies assigned locally is the best one. When a locality reduces its imports, the subsidies saved will go to the locality to support production. This will turn economic subsidies into construction funds, thereby sparking the vitality of the local economy. If this issue is not faced, local agriculture will show no major development, nor will further funds be attracted to exploitative construction.

V. Extreme Attention Should Be Paid To Attracting All Kinds of Talents and Strengthening the Exploitation of Knowledge

The key to developing and building Qinghai is still a matter of talent. We feel that the following points should be stressed:

First, living and working standards in Qinghai and the northwest as a whole are difficult, relatively speaking. Conditions for those engaged in agricultural and animal husbandry research are even worse. The northwest not only has a serious soil erosion problem; the erosion of talent is an even worse problem. If it becomes impossible to form a stable, high-quality technical force for agricultural and animal husbandry research, then the issue of developing knowledge concerning agriculture and animal husbandry is a moot one. The basic condition for solving this problem is to conscientiously implement the party's policies on intellectuals. We in the various levels of leadership should show a special long-term concern for work in the great northwest, and do as much as possible to see that intellectuals and talents of all sorts who devote themselves to developing Qinghai's agriculture and animal husbandry are able to reach their maximum potential.

Qinghai must adopt policies with abundant foresight which will attract intellectuals of all sorts and artisans from the developed coastal regions. They should broaden the horizon in developing knowledge. On the one hand, they must attract and then settle research workers at the advanced and intermediate level and give them the impetus to expend themselves to develop Qinghai. At the same time, they should open the front door to able craftsmen and artisans from the "mud rice bowl" of the southeast coast to come to the cities of Qinghai--especially rural workers and farmers. In this way, they can earn a bit of money at the same time as a segment of the local population gets to avail itself of their skills and knowledge.

Second, Qinghai's natural, social, and economic conditions are unique. Research and education departments must proceed from actual circumstances and implement pinpoint policies focused on upgrading quality to resolve the province's production and economic construction problems and bring out its special characteristics. Proposals should be put forth with the best of intentions but which avoid attempting to accomplish everything. The current base established by Qinghai's agricultural research organs on the study of agriculture, animal husbandry, and fisheries on the plateau has a specific foundation and is unique. Consideration should be given to the establishment of a plateau agriculture, animal husbandry, and fisheries research center which is dependent on these research institutes during the Seventh 5-Year Plan which is funded primarily by the province with some support from the ministries. Moreover, Qinghai's agricultural education should not only continue to focus on higher education, but should stress technical education at the intermediate level even more and beef up training for cadres.

Agricultural research departments located in the province and at the national level should also proceed from actual circumstances and adopt effective measures to support the development of knowledge about Qinghai. For example, tuition standards for graduate students from Qinghai in ministry-affiliated institutes may be lowered; when these institutes are putting together classes and matriculating students, a major condition should be that the students will return to Qinghai after their studies; and during winter and summer vacations, these institutes can send specialists and professors to lecture in Qinghai.

Third, coordination among agriculture, animal husbandry and fishery should be strengthened. In recent years, many provincial training locations, county-level cadres, and other agricultural cadres have not set up special schools but have set up classes in existing agricultural schools. Of course, administrative departments should provide some seed money. If this is done, the result will be to bring a close rapport between administrative, research, education, and dissemination departments and promote coordination of agriculture, animal husbandry and fishery.

12303/5915
CSO: 4007/347

QINGHAI HOLDS FIRST FORUM ON RANDOM OCCUPATION OF FARMLAND

HK270807 Xining Qinghai Provincial Service in Mandarin 2230 GMT 23 May 86

[Excerpt] The first provincial forum on land management, which concluded on 23 May, urged that governments at all levels must resolutely implement the circular of the provincial CPC Committee and provincial government on strengthening land management, curbing random occupation of farmland, turning land management measures into legislation, and quickly putting the province's land management work onto the right track.

The participating comrades of the forum held: Though having a vast territory, the province only has 0.8 percent of its total area suitable for farming. Over the years, some places have once again developed the phenomenon of randomly occupying and using farmland. Therefore, we must strengthen our land management, and do well in managing and using farmland.

Vice Governor Gabulong urged in his speech the governments at all levels to include the land management work into their important agenda. Through manifold forms, they should greatly publicize the spirit of the circular of the provincial CPC Committee and provincial government on strenghtening the land management and curbing random occupation of farmland. They should strive to perfect the land management organizations as well as the system of examining and approving the occupation of land for use. Proceeding from the areas of education, legislation, examination and planning, they should do well in land management work, and quickly develop the good social practice that everyone cherish every piece of land and use land according to the law.

/8918
CSO: 4007/418

SHAANXI

REFORM OF FERTILIZER ALLOCATION, SUPPLY DECIDED

Xi'an SHAANXI RIBAO in Chinese 2 Mar 86 p 2

[Article: "Measures To Reform Allocation and Supply of High-Quality Fertilizer"]

[Text] The Shaanxi provincial government recently decided to reform the method of allocation and supply of high-quality fertilizer. For grain, food oils, hogs, vegetables, cotton, tobacco, and lacquer, the allocation of fertilizer will be tied to the volume sold to the state.

The concrete aspects of this method are: a fair volume of high-quality fertilizer will be exchanged for sideline agricultural products; this is to be set down in procurement and sales contracts. For grain, the variety to be procured and the parity price are fixed according to national regulations; for each ton of grain, 100 kg of high-quality fertilizer will be furnished. For food oils, the variety to be purchased and parity pricing will be based on national regulations; 500 kg of fertilizer will be furnished for each ton of oil. Hogs will be sold to the state based on a purchasing contract; each head will bring 250 jin of fertilizer. Vegetables from commodity plots in counties which are vegetable bases and specialized vegetable gardens in Xi'an, Yuji, Xianyang, and Tongchun as well as in important industrial and mining areas are all sold to the state in accordance with regulations; 50 kg of fertilizer will be furnished for each mu of land. Cotton will be sold to the state according to fixed procurement contracts and parity pricing; 700 kg of high-quality fertilizer will be furnished for each ton of cotton. Commodity base counties that produce topor medium-grade flue-cured tobacco will sell it to the state according to a regulated price; for each ton of leaves, 250 tons of fertilizer will be supplied; will be sold to the state based on a price set by the province; 1 ton of fertilizer will be supplied for each ton of lacquer.

To ensure that contracts are honored, Shaanxi's government makes all arrangements regarding sources for fertilizer in the province, and it has also decided that all fertilizer produced within the province will be shifted from a negotiated to a parity price. Any deficit in the price will be subsidized by the provincial government. It is also stipulated that fertilizer to be bartered for sideline agricultural products be distributed based on seasonal need for various items. Based on the volume in the fixed-purchase contract, farmers should be supplied 40 to 60 percent of their need in advance; the rest will be delayed until after the sales contract is fulfilled. Then it must be paid off completely and certified so; it cannot be held in arrears.

In addition, it was determined and it is stressed that parity pricing for fertilizer must be in accordance with a regulated program and that the furnishing of fertilizer is based on volume and time. A parity-price system cannot become a negotiated price. The diversion of funds is prohibited, as is relying on connections, "entering by the back door" or indiscriminate buying and supply. Absolutely no pretext can be employed to disguise a price hike. Violators must be dealt with severely.

Grain, oil, cotton, and tobacco will be under the effect of the new system starting with the 1986 production season. Hogs are under its effect beginning 1 Jan of this year. Vegetables and lacquer have been under the effect of this new system since the day it was promulgated.

13030/12781
CSO: 4007/335

SHANDONG

BRIEFS

SHANDONG MEETING ON GRAIN DEVELOPMENT--Our reporter has learned that, at the provincial conference on developing grain production bases throughout the province which concluded on 5 June, 45 counties throughout the province had been organized into the first group which will turn themselves into grain production bases. After the building of such grain production bases, it is estimated that they will annually provide 5.7 billion jin of marketable grains for the state. These counties are mainly scattered over northwestern and southern Shandong. They plan to spend 3 years on turning themselves into grain production bases. The province plans to have the second-group of 15 counties spend 2 years on building themselves into such bases. The provincial conference jointly sponsored by the provincial Agricultural Department, the provincial Financial Department, and the provincial Water Conservancy Department, held special discussions on making arrangements for funds and construction projects. [Text] [Jinan Shandong Provincial Service in Mandarin 2200 GMT 5 Jun 86 SK] /12712

CSO: 4007/428

FARM MACHINERY SERVICE NETWORK ESTABLISHED

Beijing NONGYE JIXIE [FARM MACHINERY] in Chinese No 12, 18 Dec 85 p 2

[Article by Shanxi Farm Machinery Management Bureau: "Basis to Improve Management of Agricultural Mechanization"]

[Text] Beginning in the summer of 1982, Shanxi's agricultural mechanization has shown significant expansion. There have been large increases of tractors and every kind of machinery. Agricultural machinery has entered the realm of monoculture, and has permeated every area of agriculture. Moreover, it has advanced millions of households. In this situation, traditional farm machinery management that primarily uses administrative management clearly is inappropriate. On one hand, farm machinery households do not receive the various services that they need and, on the other hand, farm machinery stations do not have any work to do, making continued operation difficult.

In 1983, we proposed that farm machinery management implement the "three changes," gradually building a scientific system of technical services for agricultural mechanization. According to these guiding thoughts, work on building a farm machinery service network was begun throughout the province. After several years of hard work, a farm machinery service network has appeared in Shanxi's villages, with many levels and forms--for province, township, village, and household. Up through the end of June, there were 2,465 farm machinery service sites. Of these, 1,026 were operated by counties and townships, and villages and households operated 1,262.

The building of a service network has improved the management of farm machinery and has further spurred the interest of peasants in initiating mechanization on their own. It also has changed the passive situation of former farm machinery stations in townships and towns, which had not done much and had operated at a loss for a long period. New life has been brought to them. In just the first half of this year, the total income of all of the farm machinery service organizations was 58.41 million yuan, with profits of 10.39 million yuan.

Shanxi's service network regards agriculture as primary. At present, it is expanding services related to agricultural mechanization, as well as services related to the production and consumer needs of local peasants, such as repair work, sale of petroleum products, supply of spare parts, rental of farm machinery and tools, technical training, extension of new technology, answering of technical questions, processing of agricultural and sideline products, etc. At the same time, it is starting other services, such as opening restaurants, hotels, food stores, and small department stores, according to local conditions.

The building of the service network has relied primarily on the economic resources of collectives and individuals. Of the 32.16 million yuan used in starting the farm machinery service organizations, collectives and individuals contributed more than 70 percent. The provincial government also provided a large amount of support in the building of the network.

This year, it has appropriated 3.45 million yuan in various funds (700,000 yuan in hill-district development funds, 600,000 yuan in agricultural production revolving funds, and 2.15 million yuan in low-interest agricultural loans) to establish or expand 91 key farm machinery service organizations.

For the next step, we are preparing to overhaul each level of service organization, making clearer organizational lines, correcting guiding ideas, expanding the scope of services, improving the quality of services, increasing results, and contributing to the healthy expansion of Shanxi's agricultural mechanization.

12994/12951
CSO: 4007/301

FISH RAISING INCREASES IN SHANXI PROVINCE

OW260224 Beijing XINHUA in English 0123 GMT 26 May 86

[Text] Taiyuan, May 26 (XINHUA)--Fish is no longer a rare dish for the peasants on the loess plateau, 1,000 meters above the sea level in China's inland province Shanxi.

The province produced 2.7 million kilograms of fish--three times that of 1980.

During major holidays, freshwater fish is available on peasant markets of Taiyuan and other big cities.

However, fish used to be regarded as a luxurious food by many peasants before 1980.

Lack of rain, they suffer from drought most of the years. [sentence as received] the quantity of the ground water for every person in Shanxi is only one-sixth compared with the nation's average standard

Looking at the Yellow River, the second largest in China, flowing away under their feet, they did not know how to raise fish.

Among its population of more than 25 million, there were only 1,000 fishermen in 1980, scattering near the waters of the province's major rivers.

The growing difficulty of fish supply caught the attention of the agricultural departments with the introduction of the rural responsibility system, which tied the peasants economic benefits to their output of production.

Local authorities signed contracts with more peasants near the water and organized more to dig ponds on deserted saline fields for fish raising.

The fishermen increased from 1,000 in 1980 to 5,539 by the end of last year.

They also introduced more high yielding breeds suitable for cold water and succeeded in netting 75,000 kilograms of fish in per hectare of water surface.

Early this year, fishermen introduced new breeds from Zhejiang, Qingdao and other coastal provinces and cities, including shrimps, crabs and clams.

Its Yellow River carp enjoyed a high reputation and began to be sold to Japan.

Now the province's 27.300 hectares of lakes, ponds and reservoirs have all been used for fishing, an agriculture official told XINHUA.

Yongji County, the major fish producer of the province, caught nearly 400,000 kilograms of fish last year, as against 35,000 kilograms in 1981. Except satisfying the needs of tis own market, it also sold half of its products to other counties.

/8918
CSO: 4020/337

PROBLEMS IN FIGHTING DROUGHT FACED

HK200147 Chengdu Sichuan Provincial Service in Mandarin 2200 GMT 19 May 86

[Excerpts] Xie Shijie, member of the standing committee of the provincial CPC Committee and vice governor, has led responsible comrades of relevant provincial departments and bureaus to work on the spot in the drought-hit areas of southern Sichuan.

During the course of their work, they unanimously held that the current rural situation is good. This is mainly shown in the following four ways: 1) As a result of seriously conveying and implementing this year's Central Document No 1, all levels have attached importance to strengthening the agricultural foundation, and in particular have taken many measures and done a lot of work to improve grain production, which is the foundation of the foundation. 2) The peasants' enthusiasm for growing grain has been enhanced. Preparations for spring farming were done better than in previous years. 3) Agricultural investment has increased. The material conditions, such as water conservancy, chemical fertilizer, and farm machinery, are better than in previous years. 4) Relatively big increases have been gained in output of spring-harvested grain and rapeseed.

They also saw that due to the lack of rain and snow in most parts of the province since last winter, drought persisted throughout the winter and spring, and summer drought has now appeared. The drought is also continuing to develop. This is having a serious effect on the transplanting and sowing of spring-sown crops. Rises and falls of temperature have caused rice seedlings to rot and die and maize to wither. This is bad for increasing grain production. In addition, some places have been hit by high winds and hailstorms, causing losses in varying degrees to grain crops and the masses' lives and property.

Even more important, rainfall has remained low in May. Some parts will have more rain than usual in June. Around mid-July there will be a period of drought lasting 20 to 30 days in the basin. These natural disasters are causing many difficulties and unfavorable factors for this year's agricultural production. The leaders at all levels must pay serious attention to this point.

The provincial CPC Committee, government, and relevant departments and bureaus have provided all possible assistance in capital, fuel, electric power, and fertilizer for five prefectures and cities in southern Sichuan that have been seriously hit by drought.

Xie Shijie stressed that the party committees and government at all levels must summon up resolve and continue to strengthen leadership over the struggle against natural disasters. They must lead the masses to forge ahead through overcoming difficulties and reap a bumper harvest.

/8918
CSO: 4007/418

DISEASE INTERFERES WITH EXTENSION OF RICE HYBRIDS

Chengdu SICHUAN RIBAO in Chinese 6 Feb 86 p 2

[Article by Sichuan Seed Co.: "Expand Planting of Hybrid Seeds, Strive This Year for Excellent Rice Harvest"]

[Text] Rice is the main component of Sichuan's grain production. In recent years, much efforts has been invested in extending hybrid seed varieties and improving planting methods. Generally yields have increased more than 20 percent over those of common rice varieties. Sichuan rice now is able to end a long period of fluctuation. Per mu yields exceed 800 jin. The area planted in hybrid rice is large, and an important factor has been the high yields. In order to fulfill the task of increasing grain production in 1986, the continued extension of hybrid rice is critical for speedily realizing the plan.

Last year, rice blast hit Sichuan, and some comrades who do rural work and some peasants had varying understanding of the relationship of hybrid rice and rice blast, and how to distribute varieties, and other matters. Some felt that since the hybrid rice was blighted, then common rice varieties should be planted instead. Some felt that since Shanyou No 2 was "diseased," then Shanyou No 63 must be planted, and so on. During the implementation of the hybrid rice extension plan, it is essential that there be shared understanding.

Since 1984, rice blast has been prevalent in some districts in Sichuan, and Shanyou No 2 and some common rice varieties have been afflicted. Shanyoy No 2 has shown high yields and high-quality rice and has been widely accepted by the masses since extension began. The area planted in it has rapidly expanded to 22 million mu, which is more than 80 percent of the area planted in hybrid rice in Sichuan. Almost one-half of all rice planted in Sichuan is Shanyou No 2. With rice blast prevalent, Shanyou No 2 that has been hit has produced lower yields. For 2 successive years, we have had some of the specialists and scientific personnel of agricultural research units, universities and colleges, and appropriate units carry out field observations at a number of locations. All feel that the main reason that Shanyou No 2's disease resistance is weak is the physiological change in the germs of rice blast. However, it has been hit slightly less than common rice varieties.

Rice blast can be controlled simply by strengthened comprehensive prevention and treatment. In those places where prevention and treatment has been carried out well, good harvests have been obtained even in areas where the disease was most prevalent, such as the Shuanggu District of Rongxian County, Qihu Township of Renshou County, and other places.

We believe that a major reason for the prevalence of rice blast is the planting of single varieties. Sichuan at present has several hybrid combinations. If they are reasonbly distributed, and if disease prevention and treatment is carried out, rice blast can be controlled this year. If distinctions are not made between districts that have been hit hard by the disease and those that have been hit less so or not at all, and Shanyou No 2 is not planted anywhere, then the supply of other hybrid seed will be insufficient. This will result in shrinking the area planted in hybrid rice in the province and will influence the goal of increased grain production this year. Exclusive planting of Shanyou 63 could mean repeating the same mistake, leading to reduced disease resistance in the variety.

In order to insure an increase in rice production this year, extension of hybrid rice must continue. The base of last year must be expanded. There should also be wise distribution of varieties. In those districts hard hit by the rice blast, Shanyou 63 should be extended, and the area planted in Gangai No 1, Aiyou No 1, Shanyou No 1, "D"-you No 1, Weiyou 64, Early Shanyou No 1, and other combintations that are resistant to disease should be expanded. In areas that have not been hit, or have been lightly hit, by the diseases, Shanyou No 2 can continue to be used. At the same time, Shanyou 63, Aiyou No 1, Aiyou S, and other varieties should be planted. In the Penzhou hill districts, Weiyou 64, Shanzhai No 8, Shanyou 51, and others should be planted. In conclusion, while determining the management and coordination of varieties, the proliferation of varieties must be controlled, while at the same time sole reliance on a single variety must be avoided lest it lead to the prevalence of disease or pests. The outbreak and prevalence of rice blast is due largely to climatic and planting conditions. At present, there is no combination that is absolutely resistant to disease. Therefore, no matter what combinations and varieties are planted, no matter whether the district has been heavily hit, lightly hit, or not hit by disease at all, everyone should carry out comprehensive prevention and treatment of rice blast in order to insure a good rice harvest.

12994/12951
CSO: 4007/301

REVISIONS REVEALED IN XINJIANG SEVENTH 5-YEAR PLAN REPORT

HK050212 Urumqi Xinjiang Regional Service in Mandarin 1200 GMT 3 Jun 86

[Excerpts] Compared with the report delivered by Chairman Tomus Dawamat at the opening ceremony on 26 May, six important revisions have been made in the report on the region's Seventh 5-Year Plan made by Chairman Tomus Dawamat which was adopted by the fifth session of the sixth Regional People's Congress. These revisions were made in accordance with the suggestions put forward by deputies in the course of examining and discussing this report.

Regarding the principle of grain production, in accordance with the views of deputies, the relationship between the enlargement of the areas and the increase in per-mu yield in the report should be readjusted [words indistinct]. The report adopted today has been revised to: Continue to implement the principle of regarding the increase in per-mu yield as the main work and on the basis of strengthening and improving farmland and water conservancy construction, suitably expand the sown areas.

Regarding livestock production, the end of the report stresses that it is necessary to put animal husbandry in a more prominent position and a long paragraph has been newly added, pointing out: It is necessary to continuously perfect the system of contracted responsibilities for livestock and grass, to strengthen grassland water conservancy construction, to enforce the law of grassland and the regulations on the management of grassland, to improve the traffic conditions of pastoral areas, to improve the breeds of livestock, to build a large number of livestock, milk, fur, and leather bases in a planned way, and to speed up the development of the pastoral areas' commodity economy.

Regarding the maintenance of ecological balance, the report has been added with the specific contents: It is essential to vigorously plant trees and grass, to vigorously prevent and treat the weathering and salinization of soil, to speed up the comprehensive harnessing of [words indistinct], and to protect and improve the specific contents of the ecological environment.

Regarding people's livelihood, the report has been added: The Central Authorities have taken definite and scientific measures and pointed out: The State Council has agreed on including two prefectures and one autonomous prefecture in south Xinjiang in the key areas of the whole country where the poor should be helped. They have shown great concern for and taken care of us. We must work still harder to do work well. At the same time, they have pointed out: It is necessary to make preparations for setting up a comprehensive import and export company of two prefectures and one autonomous prefecture as soon as possible to promote the development of the commodity economy of south Xinjiang.

/12712
CSO: 4007/428

END

JPRS-CAG-86-026

25 JUNE 1986

China Report

AGRICULTURE

SICHUAN AGRICULTURAL GEOGRAPHY

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-026

25 JUNE 1986

CHINA REPORT

AGRICULTURE

SICHUAN AGRICULTURAL GEOGRAPHY

Chengdu SICHUAN NONGYE DILI [SICHUAN AGRICULTURAL GEOGRAPHY] in Chinese Feb 81 pp 1-15, 44-53, 71-99, 100-112, and 256-262

[Selections from SICHUAN AGRICULTURAL GEOGRAPHY of the Chinese Agricultural Geography Series; edited by the Chengdu Institute of Geography, Chinese Academy of Sciences; published by Sichuan Renmin Chubanshe, 1981]

CONTENTS

Table of Contents.. 1

Chapter 1. Assessment of Natural Conditions for Agriculture in Sichuan..... 12

First Section. Landforms.. 12

Second Section. Soil Resources.. 18

Chapter 2. Historical Changes in Sichuan's Agricultural Production......... 32

Second Section. Magnificent Accomplishments on the Agricultural Front Since Liberation.............................. 32

Chapter 4. Patterns of Production of All Sectors of Agriculture in Sichuan Province (Part 1)................................... 45

First Section. Grain Crops... 45

Second Section. Cash Crops.. 66

Chapter 5. Patterns of Production of All Sectors of Agriculture in Sichuan Province (Part 2)................................... 84

First Section. Animal Husbandry... 84

Attached Tables

Table 1. Natural Survey of All Agricultural Regions in Sichuan............100
Table 2. Basic Agricultural Situation in All Agricultural Regions in Sichuan...101
Table 3. Status of Farming, Forestry, and Animal Husbandry in All Agricultural Regions Throughoug Sichuan.........................102

Table 4. Structure of Crops Sown in All Agricultural Regions of Sichuan...103
Table 5. Structure of Grain Crop Output in All Agricultural Regions of Sichuan...104
Table 6. Average Crop Yields in All Agricultural Regions of Sichuan.......104
Table 7. Distribution of Livestock in All Agricultural Regions of Sichuan...105

SICHUAN AGRICULTURAL GEOGRAPHY

[Excerpts] Table of Contents

Page
[original source page number]

PART I

Overview.. 1

Chapter 1. Assessment of Natural Conditions for Agriculture in Sichuan 2

First Section: Landforms.. 2

1. Major Types of Landforms.................................. 2
2. Characteristics of Regional Landforms..................... 4

Second Section: Soil Resources.................................. 6

1. Farmland.. 7
2. Forestland.. 12
3. Meadowlands and Turfed Slopes............................. 13
4. Wastelands Suitable for Agriculture....................... 14

Third Section: Light and Heat Resources......................... 15

1. Light Energy Resources.................................... 15
2. Heat Resources.. 17

Fourth Section: Water Resources................................. 26

1. Precipitation... 26
2. Surface Water... 29
3. Ground Water.. 32

Fifth Section: Major Mineral Resources.......................... 32

1. Iron and Coal Resources................................... 33
2. Fuel Resources.. 33
3. Building Materials Resources.............................. 35

Sixth Section: Agricultural Natural Disasters................... 35

1. Drought... 35
2. Low Temperatures and Autumn Drizzle....................... 37
3. Torrential Rains and Flooding............................. 38
4. Erosion... 38
5. Frosts and Freezes.. 39
6. Hailstorms.. 40

Chapter 2. Historical Changes in Sichuan's Agricultural Production.... 41

First Section: Brief History of the Development of Agricultural Production.... 41

1. Waxing and Waning of Agriculture in Ancient Times........ 41
2. The Semifeudal and Semicolonial Nature of Agricultural Production in Modern Times.................... 42

Second Section: Magnificent Accomplishments on the Agricultural Front Since Liberation.......................... 44

1. Simultaneous Emphasis on the Five Occupations for All-Round Development............................ 44
2. Steady Expansion in the Scale of Farmland Capital Construction.. 46
3. Emergence of a New Situation Through Reform of Farming System.. 49
4. General Rise in Scientific Farming...................... 50
5. Increasingly Solid Industrial Basis To Support Agriculture.. 52

Chapter 3. Orientation and Path of Sichuan's Development of Agriculture.. 54

First Section: Change in Fundamental Conditions for Agricultural Production.......................... 54

1. Building of Water Conservancy and Expansion of Irrigated Zone.. 54
2. Improvement of Fields and Soil; Building of Consistently High-Yielding Basic Fields...................... 56
3. Planting of Trees in Afforestation and Greening of the Good Earth.. 58

Second Section: Spread of Scientific Farming and Increase in Soil Productivity Rates.......................... 58

1. Good Performance in Scientific Farming; Vigorous Increase in Yields.................................. 59
2. Reform of the Farming System and Increase in Multiple-Cropping Index.. 61

Third Section: Mechanism of Agriculture for Increase in Labor Productivity Rates............................ 64

1. Step-by-Step Rise in Agricultural Mechanization.......... 65
2. Suiting of General Methods to Local Circumstances in Agricultural Mechanization............................ 66

Fourth Section: Development of Economic Diversification With Large-Scale Operation of Commune and Brigade Enterprises.................................. 68

1. Energetic Development of Economic Diversification....... 68
2. Active Operation of Commune and Brigade Enterprises..... 69

Chapter 4. Patterns of Production of All Sectors of Agriculture in Sichuan Province (Part 1).............................. 71

First Section: Grain Crops................................ 71

1. Basic Features of Grain Crop Production Patterns........ 71
2. Status of Production and Course of Development of Major Grain Crops................................ 75
3. Commodity Grain Production and Distribution of Bases.... 83

Second Section: Cash Crops................................ 86

1. Basic Features of Cash Crop Production Patterns......... 86
2. Status of Production and Course of Development of Major Cash Crops................................. 89
3. Distribution of Major Cash Crop Bases................... 96

Chapter 5. Patterns of Production of All Sectors of Agriculture in Sichuan Province (Part 2).............................. 100

First Section: Animal Husbandry........................... 100

1. Basic Features of Animal Husbandry Production Patterns.. 100
2. Status and Course of Development of Major Animal Husbandry Production................................ 103
3. Distribution of Livestock Breeding Bases and Community Livestock Product Bases.................... 109

Second Section: Timber Products........................... 112

1. Timber Forest Resources and Their Distribution.......... 112
2. Status of Production and Course of Development......... 116
3. Distribution of New Timber Forest Bases................ 120

Third Section: Forest Byproducts.......................... 122

1. Wood Oils.. 123
2. Silkworm Mulberry...................................... 125
3. Tea.. 127
4. Fruits... 129
5. Medicinal Herbs.. 131
6. Tremella and Jew's-Ear................................. 132
7. White Wax.. 133

Fourth Section: The Fishing Industry.......................... 134

1. River Catches.. 134
2. Rearing of Fish in Ponds and Reservoirs...................... 135
3. Rearing of Fish in Paddyfields............................... 136
4. Assembly Line Rearing of Fish................................ 136

PART II. Agricultural Subregions................................ 138

Chapter 6. Western Basin Plains Zone Producing Grain and Edible Oil.. 141

First Section: Agricultural Production Conditions, Characteristics and Orientation of Development... 141

1. Agricultural Production Conditions........................... 141
2. Agricultural Production Characteristics...................... 142
3. Orientation of Agricultural Development...................... 144

Second Section: Further Building of Water Conservancy To Improve Drainage and Irrigation................ 144

1. Renovation and Expansion of Du Jiang Dams and Ditches... 144
2. Full Control of the Jinma, Xi, Shiting, and Mianyuan Rivers.................................... 146
3. Separate Irrigation and Drainage Systems..................... 146
4. Active Development of Ground Water Resources................. 147

Third Section: Strict Attention to Improvement of Waterlogged Fields To Hasten Garden-Style Cultivation........ 147

1. Efforts To Improve Waterlogged Fields........................ 147
2. Unified Planning for Water, Fields, Forests, and Roads To Realize Garden-Style Farming................ 148

Fourth Section: Farm System Reform for Full Advantages From Commodity Grain and Edible Oil Bases............ 149

1. Good Performance in Crop Patterns............................ 149
2. Rational Mix of Varieties.................................... 150
3. Greater Development of Fertilizer Sources.................... 151

Fifth Section: Suiting of General Methods to Specific Circumstances for Economic Diversification....... 152

1. Further Development of Hog Raising........................... 152
2. Active Development of the Raising of Silkworms, Bees, and the Rearing of Fish.............................. 153
3. Full Use of Wasteland Suitable for Forests; Development of Chinese Fir Forests, Fruits, and Tea.......... 154

Chapter 7. Middle Basin Hill Grain and Cash Crop Zone (Zone II)..... 156

First Section: Agricultural Production Conditions, Characteristics, and Orientation of Development....... 156

1. Agricultural Production Conditions..................... 156
2. Agricultural Production Characteristics................ 157
3. Orientation of Agricultural Development................ 159

Second Section: All-Out All-Round Tackling of Water, Soil, Forests, Fertilizer, and Marshes............... 159

1. Combination of Impounding and Diversion for Good Performance in Building of Water Conservancy........... 159
2. Soil Improvement and Increased Fertilization; Thickening of Soil Layer............................ 160
3. Combination of Soil Improvement, Afforestation, and Measures for Draining Floodwaters From Fields........ 161
4. Pattern for a Combination of Cisterns, Methane Gas Pits, and Hog Farms................................. 162

Third Section: Institution of Farming System Reforms in Which a Three-Crop System of Intercropping Dryland Strips Is the Key....................... 163

1. Need for Reform of the Drylands Farming System.......... 163
2. Promotion of a Three-Crop System of Crop Rotation and Intercropping of Strips.......................... 164
3. Increase in Wetlands Multiple-Cropping Index........... 165

Fourth Section: Increased Building of Cash-Crop Bases and Active Development of Economic Diversification.. 166

1. Rational Cash-Crop Patterns............................. 166
2. Greater Benefits From Middle Basin Cotton Bases......... 167
3. Consolidation of Sugarcane Production Bases Centering Around Inland Rivers........................ 168
4. More Building of Other Cash-Crop Bases.................. 168
5. Consolidation of Silkworm Mulberry Production and Development of Economic Forests...................... 169

Chapter 8. Southern Basin Hill Grain, Edible Oil and Fruit Zone (Zone III)... 171

First Section: Agricultural Production Conditions, Characteristics, and Orientation of Development........ 171

1. Agricultural Production Conditions..................... 171
2. Agricultural Production Characteristics................. 172
3. Orientation of Development of Agricultural Production... 173

Second Section: Large-Scale Water Conservancy; Transformation of Winter Wetlands and Low-Yield Soils......... 173

1. Self-Reliance in Building of Water Conservancy......... 173
2. Transformation of Winter Wetlands as the Key in Building Consistently High-Yield Farmland............ 174

Third Section: Promotion of Farm System Reform Centering Around Two Paddy Crops.......................... 177

1. Suiting of General Methods to Specific Characteristics To Promote Two Paddy Crops................. 177
2. Active Development of Oil-Bearing Crop Production...... 178
3. Widening Sources of Fertilizer To Increase Fertilization.. 179

Fourth Section: Further Development of Subtropical Fruit, Trees, and Sugarcane.......................... 181

1. Development of Subtropical Fruit Production Centering Around Citrus............................. 181
2. Appropriate Expansion of Sugarcane Production.......... 181
3. Increased Growing of Other Economic Trees............. 182

Chapter 9. Eastern Basin Both Mountain and Valley Grain, Oil-Bearing Crops, and Ramie-Growing Zone (Zone IV).................. 183

First Session: Agricultural Production Conditions, Characteristics, and Orientation of Development....... 183

1. Agricultural Production Conditions.................... 183
2. Agricultural Production Characteristics............... 184
3. Orientation of Development of Agricultural Production.. 185

Second Section: Building of Water Conservancy To Transform Low-Yield Fields............................... 185

1. Widening Sources of Water; Building of Water Conservancy.. 185
2. Improving Fields and Improving Soil, Building of Consistently High-Yield Farmland.................... 186

Third Section: Development of Winter Crop Production; Promotion of "Three Earlys" and "Three Hybrids". 187

1. Make the Most of Advantages and Avoid Disadvantages To Increase Growing of Winter Crops and "Three Earlys".. 187
2. Reform of the Farming System To Improve Multiple-Cropping Index..................................... 188
3. Promotion of the "Three Hybrids" To Increase Grain Yields... 189

Fourth Section: Active Development of Economic Diversification... 190

1. More Building of Ramie, Citrus, and Kohlrabi Bases....... 190
2. Development of Cattle and Goats To Raise the Commodity Rate for Livestock Products.................. 191
3. Further Development of Wood Oils and Silkworm Mulberry... 192

Chapter 10. Basin-Girdling Mountainland Forestry, Production Zone for Farming, and Native Products (Zone V)..................... 193

First Section: Agricultural Production Conditions, Characteristics, and Orientation of Development......... 193

1. Agricultural Production Conditions...................... 193
2. Agricultural Production Characteristics.................. 195
3. Orientation of Agricultural Development.................. 197

Second Section: Comprehensive Tackling of Mountains, Water, Fields, Forests, and Roads...................... 197

1. Good Performance in the Capital Construction of Farmlands at Lower Levels of Mountains................. 197
2. Acceleration of the Tackling of Mountains, Water, Forests, and Roads at Lower Levels of Mountains........ 198

Third Section: Active Promotion of "Three Improvements" To Increase Crop Yields.......................... 199

1. Reform of the Farming System To Increase the Multiple-Cropping Index................................ 199
2. Improvement of Varieties and Improvement of Planting Techniques.................................... 200
3. Expansion of Fertilizer Sources for Increased Fertilization.. 202

Fourth Section: Energetic Development of Forestry Production With the Building of Forestry, Animal Husbandry, and Sideline Production Bases............ 202

1. Better Protection and Management of Existing Mountain Resources.................................. 202
2. Greening of Barren Mountains and Expansion of Followon Resources for Forestry Byproducts Production.. 203
3. Full Use of the Role of Forestry, Sideline, and Native Products Bases............................... 204
4. Building of Beef Cattle, Water Buffalo, and Goat Bases... 205

Chapter 11. Southwestern Sichuan Central Mountainland Forestry, Animal Husbandry, and Farming Zone (Zone VI)............ 206

First Section: Agricultural Production Conditions, Characteristics, and Orientation of Development....... 206

1. Agricultural Production Conditions... 206
2. Agricultural Production Characteristics................ 207
3. Orientation of Agricultural Development............... 208

Second Section: Improvement of Farmland Basic Conditions To Increase Grain Yields....................... 209

1. Attention to Farmland Capital Construction............. 209
2. Reform of Farming System To Increase Multiple-Cropping Index.. 211
3. Promotion of Hybrid Corn................................ 212

Third Section: Active Development of Forestry and Sideline Production..................................... 213

1. Energetic Afforestation and Protection of Timber Forests... 213
2. Development of Fruit Tree, Wood Oil, and Medicinal Herb Production...................................... 214
3. Correct Handling of Several Problems in Forestry and Sideline Production............................ 214

Fourth Section: Acceleration of the Development of Animal Husbandry....................................... 215

1. Current Status and Problems in Animal Husbandry Production.. 215
2. Good Performance in Capital Construction of Meadowlands and in the Building of Livestock Shelters...... 216
3. Firm Attention to Sheep Improvement................... 217
4. Good Performance in Prevention and Control of Epidemic Diseases.................................. 217

Chapter 12. Southwestern Sichuan Central Mountains Broad Valley Grain and Tropical Crops Zone (Zone VII)................ 218

First Section: Agricultural Production Conditions, Characteristics, and Orientation of Development....... 219

1. Agricultural Production Conditions.................... 219
2. Agricultural Production Characteristics............... 220
3. Orientation of Development of Agricultural Production.. 222

Second Section: Good Performance in All-Round Tackling of Water, Soil, Forestry, and Fertilizer........... 222

1. Accelerated Farmland Capital Construction in Broad Valleys and Basins.................................... 222
2. Comprehensive Tackling of the Development of Soil, Water, and Forests at the SEcond Level Up in Mountain Areas..................................... 225

Third Section: Suiting of General Methods to Local Situations in Reform of the Farming System To Raise the Multiple-Cropping Index.......................... 226

1. Further Development of a Two-Crops-Per-Year Farming System in Broad Valleys and Basins.................... 226
2. Consolidation and Development of a Three-Crops-Per-Year Farming System in Southern Dry and Hot River Valleys... 226
3. Increase in the Utilization Rate of Winter Fallow Land at the Second Level up in Mountain Areas......... 227

Fourth Section: Active Development of Tropical Crop, Forestry, and Animal Husbandry Production................. 228

1. Building of Tropical Crop Production Bases............. 228
2. More Growing of Sugarcane and Making the Most of Advantages for Production of Sugar Crops............. 229
3. Active Development of Forestry Production.............. 230
4. Further Development of Goats and Sheep................. 231

Chapter 13. Western Sichuan High Mountain and Deep Valley Forestry, Farming, and Livestock Zone (Zone VIII).................. 232

First Section: Agricultural Production Conditions, Characteristics, and Orientation of Development........ 232

1. Agricultural Production Conditions..................... 232
2. Agricultural Production Characteristics................ 233
3. Orientation of Agricultural Development................ 235

Second Section: Further Increase in the Building of Forestry Bases... 235

1. Intensification of Fire Prevention and Forest Production Work.. 235
2. Acceleration of the Replanting of Cutover Land........... 236
3. Greening of Barren Mountains for Expansion of Timber Forest Resources..................................... 237
4. Development of Economic Forests Consisting Primarily of Fruit Trees.. 237

Third Section: Good Performance in Soil Improvement, Harnessing of Waters, and Reform of Dryland Farming System... 237

1. Soil Improvement and Harnessing of Waters for Capital Construction of Farmland........................ 238
2. Reform of Farming System and Promotion of Superior Varieties.. 239

Fourth Section: Active Development of Animal Husbandry........... 241

1. Good Performance in the Building of Meadowlands for Expansion of Fodder Production......................... 241
2. Improvement of Livestock Breeds To Improve Quality of Livestock Products................................ 241
3. Strengthening of Livestock Feeding and Care.............. 243

Chapter 14. The Northwestern Sichuan Plateau Animal Husbandry Zone (Zone IX)... 244

First Section: Agricultural Production Conditions, Characteristics, and Orientation of Development......... 244

1. Agricultural Production Conditions....................... 244
2. Agricultural Production Characteristics.................. 245
3. Orientation of Agricultural Development.................. 245

Second Section: Firm Attention to Capital Construction of Prairies.. 246

1. Building of Grassland Ranges and Rational Use of Meadowlands.. 246
2. Active Building of Water Conservancy..................... 247
3. Eradication of Rats and Insect Pests..................... 248
4. Large-Scale Construction of Livestock Pens and Sheds..... 248

Third Section: Active Breeding of Superior Breeds; Better Feeding and Care of Livestock..................... 249

1. Active Breeding of Superior Breeds....................... 249
2. Better Feeding and Care.................................. 250

Fourth Section: Suiting General Methods to Local Situations for the Development of Farming and Economic Diversification.................................. 252

1. Surmounting Low Temperatures, Frosts and Freezes, and Hailstone Damage To Raise Guaranteed Grain Harvest Rate.. 252
2. Gradual Development of Cold-Tolerant Cash Crops.......... 253
3. Development of Medicinal Herb Production for Rational Use of Forest Resources............................... 255

Attached Tables:

Table 1. Natural Survey of All Agricultural Regions in Sichuan... 256
Table 2. Basic Agricultural Situation in All Agricultural Regions in Sichuan.. 257
Table 3. Status of Farming, Forestry, and Animal Husbandry in All Agricultural Regions of Sichuan.................... 258
Table 4. Structure of Crops Sown in All Agricultural Regions of Sichuan... 260
Table 5. Structure of Grain Crop Output in All Agricultural Regions of Sichuan.. 261
Table 6. Average Crop Yields in All Agricultural Regions of Sichuan.. 261
Table 7. Distribution of Livestock in All Agricultural Regions of Sichuan... 262

Attached Photographs

[Excerpts]

PART I

Chapter 1. Assessment of Natural Conditions for Agriculture in Sichuan

Sichuan Province lies between 97°26' and 110°12' east longitude and between 26°01' and 34°21' north latitude, straddling more than 8 degrees of latitude from north to south and covering more than 1,200 km in width from east to west, making it a vast area. Mountain chains undulate within the region; there is great variation in elevation; the terrain is complex and diverse with extremely marked vertical changes. The tremendously swelling plateau in the west and the relatively low basin in the east, in particular, provide a marked contrast between east and west within the province. Under the influence of atmospheric circulation that follows different routes, the eastern part of Sichuan has produced a moist and hot subtropical southeastern monsoon climate; the southwest has formed an alternatingly dry and wet subtropical southwestern monsoon climate; and the northwest has formed a cold plateau continental climate. The features and differences in the aforementioned geographical location, terrain, and atmospheric currents has given rise to myriad differences in natural conditions throughout the province, north, south, east, and west, between the tops and bottoms of mountains and even on slopes that lie in different directions and landforms in different positions. They have had an extremely wideranging and profound influence on the patterns of agricultural production everywhere in the province.

First Section. Landforms

1. Major Types of Landforms

Within Sichuan Province there are both plains, gently sloping hills and flatlands, hills with a sharp incline, hills with a gradual incline, mesas, and low mountains, and mountain plains, medium low mountains, medium high mountains, high mountains, extremely high mountains, and plateaus (flat plateaus, tableland plateaus, and high mountain plateaus), plus canyons, broad valleys, mountain basins, and marshy lowlands, as well as alpine glaciers and karst topography, etc. The complexity of terrain types is unequaled by any other province or region in the entire country.

Generally speaking, the types of landforms throughout the province may be summarized as plains, hills, mountains, and plateaus, with mountains and plateaus being most extensive. Preliminary calculations show mountain areas amounting to approximately 49.8 percent of the total land area, and plateaus accounting for 29.02 percent of the total land area, the two totaling 78.82 percent. Hills and plains amount to 18.64 [as published] and 2.54 percent, respectively. (See Table 1)

The foregoing types of landforms differ in terms of elevation above sea level, relative height, and shape, and they give rise to a series of environmental changes in heat, moisture, plant cover, and soil, thereby profoundly affecting use of land for production. In general, among the various types of landforms, the higher the elevation above sea level, the poorer the conditions for agriculture. Differences in agricultural conditions on those that are at nearly the same elevation above sea level are determined primarily by the slope of the land and the extent to which it is cut up.

The elevation above sea level of the plains is fairly low; heat is abundant; the land is flat and the soil thick; they are easily irrigated and drained; conditions for bringing them under cultivation are excellent; the reclamation index for agriculture stands at 60 percent or more; and an overwhelming majority of the cultivated land is paddyfields. The elevation above sea level of the hills is also low; heat is ample, and although the terrain undulates making for fairly poor conditions for the impounding or diversion of water, the gradient of slopes and relative heights are far smaller than in the mountainlands. The area suitable for cultivation is fairly large, the reclamation index amounting to approximately 40 percent. This includes gently sloping hills and flat land that is least deeply cut, and spacious flat land among the hills where conditions for reclamation for agriculture are second only to those on the plains. Hills with a sharp incline may have a relative height of 100 to 200 meters. Their slopes are fairly sharp and land among them very narrow, providing poor conditions for reclamation and the diversion of water. Conditions on hills with a gradual incline lie between those with a gentle slope and a sharp incline. It is for just this reason that even though plains and hills occupy a very small proportion of the province's total land area, they contain approximately 78 percent of the cultivated land area in the province and have become places for highly intensive farming while relatively little such land is used for forestry and animal husbandry.

Table 1. Main Types of Landforms and Their Structure in Sichuan*

Landform		Elevation above sea level (meters)	Relative elevation (meters)	Percent of total land area
Plains	Plains	<1,600	<20	2.54
Hills	Gently sloping hills and flat land	"	<50	4.00
	Gradually sloping hills	"	<100	9.89
	Sharply sloping hills	"	<200	1.75
Mountainlands	Mesas	<1,500	<500	2.52
	Low Mountains		"	18.87
	Mountains among basins	1,500-3,000		0.29
	Mountain plains	1,500-3,000	"	2.00
	Medium mountains	1,500-3,000	>500	11.48
	Medium high mountains	3,000-4,200	"	9.00
	High mountains	4,200-5,200	"	4.87
	Extremely high mountains	>5,200	"	0.77

[continued]

[Table 1--continued]

Landform		Elevation above sea level (meters)	Relative elevation (meters)	Percent of total land area
High plateaus	Flat plateaus	>3,000	<100	3.22
	Hill-shaped plateaus	>3,000	<500	12.26
	Mountain plateaus	>3,000	>500	13.02
	High plateau broad valleys	>3,000		0.52

*Based on data from Topographical Unit, Chengdu Institute of Geography

Not only are there basins among the mountains in the mountainlands, but the soil on most hillsides is thin, the land rises and falls sharply, and since the elevation above sea level is fairly high, heat conditions are fairly poor and climatic changes are complex. The area that lends itself to reclamation for agriculture is limited. It includes mesas and the tops of mountain plains that are fairly flat and broad, thus better lending themselves to reclamation for agriculture than low mountains or medium high mountains. They stand relatively high (at approximately 20 percent) among mountainlands in terms of the degree to which they may be reclaimed for agriculture. Low mountains and medium mountains have only a very small amount of land suitable for farming; most of their area may be used for forestry. Medium high mountains are mostly suitable for forestlands, with a small amount useful for pasturing livestock. They contain virtually no farmland. When high mountains are at too high an elevation above sea level, there is insufficient heat for crops and trees to grow; however, they may be used as summer pasturelands. Extremely high mountains are virtually completely covered with ice and snow or bare rocks and are entirely without value for agricultural use. Because of the altitude and coldness of plateaus, only a few wide valleys on them may be reclaimed for agriculture; however, they make fine natural pasturelands.

The foregoing complex and varied types of landforms not only provide an advantageous environment for the development of farming, forestry, animal husbandry, and sideline occupations, but also impart to the agricultural production pattern of vast areas throughout the province a diversified, three-dimensional character. For example, in high and medium high mountains, going from bottom to top there are frequently marked subareas devoted to farming, forestry, and animal husbandry. In general, the following is found in low mountainlands going from the foothills to the tops of the mountains: Wetland agriculture-dryland agriculture-forestry in three zones. Even on hills, land use from top to bottom shows marked differentiation. In lowlying areas among the hills, the terrain is closed off making for poor drainage of water. Most of this land is winter wetlands (ravine fields) that collect water all year round. At the bottom, middle, and tops of hillsides are low, middle, and high banked fields (or first, second, and third terraces) including those at the low level where water and soil conditions are best.

/

Here wetlands are most numerous and can be both irrigated and drained. At the middle level where conditions are not as good, the amount of dryland fields increases gradually. Fields at the top have thin soil and lack water; drylands are more numerous here. This panorama of "three-dimensional agriculture" profoundly reflects the influence of variations in the pattern of landforms. It is extremely beneficial for all areas of the province to bring about overall development of numerous sectors of agriculture; however, it also increases complexity in directing agricultural production and makes for many difficulties in both the capital construction of farmland and the mechanization of agriculture.

Table 2. Differences in Land Use for Principal Kinds of Landforms in Sichuan

Landform	Agricultural reclamation index	Percent of province's cultivated land	Ratio of wetlands to cultivated land
Plains	More than 60 percent	15.4	80 percent or more
Hills	Average about 40 percent including: Gently sloping hills and flat land: 50 percent; gradual incline hills: 40 percent; and sharp incline hills: 30 percent	62.5	Average about 60 percent including; Gently sloping hills and flat land: about 70 percent; gradual incline hills: 60 to 70 percent; sharp incline hills: about 30 percent
Mountainlands	Average 5 to 10 percent including: Tablelands and mountain plains: 20 percent; low mountains: 10 percent; medium mountains: 5 percent; high mountains and extremely high mountains: 0 percent	20.7	Average about 20 percent including: Tablelands: 50 to 60 percent; low mountains: 20 to 30 percent; other mountainlands: 10 to 20 percent
Plateaus	Less than 1 percent	1.4	0

2. Regional Landform Characteristics

Sichuan is made up of two main parts: The eastern part is a basin and the western part is a plateau and mountainlands. The two patterns differ sharply, with wide disparities in elevation above sea level and the extent to which the surface of the land is cut up. Conditions for agricultural production are greatly different.

A. The Eastern Basin Region

The Sichuan basin in the east is one of China's four major basins. A continuous line drawn through the four points of Guangyuan, Ya'an, Xuyong, and Fengjie generally outline the bottom of the basin, which covers an area of approximately 160,000 square km at an elevation above sea level ranging from 250 to 700 meters. It is made up primarily of Mesozoic purplish red sand, shale, and mud stone, hence the name "red basin." In the southeastern part of the basin (east of Huaying Shan) lies the parallel mountain ranges and valleys areas, which derives its name from the numerous parallel-running mountain ranges and valleys. The valleys are broad and at an elevation above sea level of only about 300 meters. Hills intrude upon the flat land, and agriculture in the valleys is fairly well developed. The mountain ranges that line both sides of the valleys range from approximately 800 to 1,000 meters in height. Their tops are frequently eroded to form narrow trough-shaped valleys along the axis of the ranges. In the middle of the basin is a large expanse of low hills, most of which are at an elevation above sea level of 300 to 500 meters with a difference in height of between 50 and 200 meters. Individual ridge-shaped and rounded hills are widespread, and terraced fields rise in layers up them or else ridges have been built up the hillsides. This is the province's major production area for grain or cash crops; however, conditions for the diversion of water are rather poor and runoff of water and soil is serious so the level of production is not high. The western part of the basin (to the west of Longquan Shan) has a series of river-formed alluvial fans and alluvial plains adjacent to each other, which together form the largest plain in the southwestern part of the country--the plain at the western end of the basin. This plain covers an area of 8,000 square km; the land is flat, the soil layer is thick and fertile; the basin is crisscrossed by streams, and footpaths crisscross the fields. This is a renowned commodity grain and oil-bearing crop base that produces high yields consistently. In the northern part of the plain are large areas of table-shaped low mountains (that are also sprinkled in the eastern and southern parts of the basin). The underlying rock layer is close to the water table and after this rock has been cut by the flow of water, it forms free-standing ridge-shaped or table-shaped mountains the tops of which are fairly flat and broad, providing better conditions for farming than ordinary low mountains. Conditions for storing or diverting water are also poor, however.

The Sichuan basin is surrounded by intermediate and low mountains, and is made up mostly of pre-Paleozoic Era limestone and metamorphic rock, with some outcroppings of basalt and granite. Towering above the western edges of the basin is a series of mountains of intermediate height such as Jiuding Shan, Qionglai Shan, Erlang Shan, Daxiang Ling, and Xiaoliang Shan. The main range is more than 3,000 meters above sea level with a difference in elevation among peaks of 1,000 meters, protruding loftily as the highest mountain among the wall of mountains that surrounds the basin. Conditions for farming are rather poor; however, forestlands and land suitable for forests is found widely. Longmen Shan, Milun Shan, and Daba Shan meander along the western edges to the northwest and north of the basin, mostly at an elevation of 1,500 to 2,000 meters or higher. The rock mass of Longmen Shan is broken up and contemporary structural movement is active with earthquakes, landslides, and rock and mud slides occurring frequently. Outcroppings of limestone are widespread on Milun Shan and Daba Shan. These imposing mountains are fairly seriously eroded. The relative difference in altitude of peaks is between 500 and 1,000 meters, and conditions for farming are also poor. On the southeastern edge of the basin lie the Wu Shan, Qiyao Shan, and Wuling Shan mountainlands, most of which are at an altitude of 1,000 to 1,800 meters, with widely developed karsting, many sheer precipices and canyons. However, there are also some broad, flat, corroded lowlands and trough valleys, the largest of them covering several thousand mu or even nearly 10,000 mu. These are the best places for the local development of agriculture. The mountainlands on the southern fringes of the basin are a transitional area between the Yunnan-Guizhou Plateau and the Sichuan basin and are on the edge of the Dalou Mountain Range at an altitude above sea level of between 800 and 1,500 meters with little relative difference in elevation between individual mountains. Conditions for farming are fairly good. However, endless tunneling by falling water of the limestone mountains, and underground karsting has produced poor conditions for the storing of surface water and the threat of drought is great.

In summary, the landforms in the eastern region of hills, low mountains, and plains at a low elevation above sea level make extremely possible their development for agriculture and economic forests. Even though the land area amounts to less than half that for the whole province, the output of grain and cash crops from the area farmed accounts for more than 90 percent of the total for the province, and output of economic forests also accounts for an overwhelming part of the total for the province. This makes the bottom of the basin and the surrounding mountains, respectively, one of the country's major agricultural centers, and its economic forest and special products centers.

B. The Western Plateau Region

The western plateau region of Sichuan consists of the Aba Zang Autonomous Prefecture, Garze Zang Autonomous Prefecture, and Liangshan Yi Autonomous Prefecture as well as Xichang Prefecture and Dukou City. The landforms in Garze Zang Autonomous Prefecture and Aba Zang Autonomous Prefecture, which make up the main part of the region, are a part of the southeastern area of the Qinghai-Xizang Plateau and cover an area of 230,000 square km, more than 70 percent of which is at an altitude above sea level of more than 3,300 meters and has a frigid climate. The northwestern part of the plateau is not cut up very much. The surface of the plateau is broad; the valleys are vast and the soil is thick and fertile. Though its frigidity militates against the farming of grain crops, the plateau provides advantageous conditions for development of animal husbandry and for the growing of cold-tolerant cash crops. The surface of the eastern and southern parts of the plateau is very much cut up, the mighty Min Shan, Qiong Shan, Daxue Shan, and Shaluli Shan mountain ranges stretching from north to south. The mountain ranges are more than 4,000 meters above sea level, and the Min Jiang, the Dadu He, the Yalong Jiang, and the Jinsha Jiang, large rivers all, follow along their valleys and have cut deeply into them to form a landscape of high mountains and gorge valleys. The bottoms of valleys lie at 1,500 to 2,400 meters above sea level and the difference in elevation between the tops of mountains and the valleys runs from 1,000 to 3,000 meters. Gongga Shan (7,590 meters above sea level) in the Daxue Shan, in particular, towers 6,000 meters above its nearby Dadu He Valley, making it a rarity in all of China. Inasmuch as the slopes on both sides of the gorge valleys rise precipitously and the edges of the valleys are at an excessively high altitude above sea level, conditions exist for the development of farming in only some stretches of the river valleys and are narrow in area. However, above the rim of the valleys there are many tracts of broad meadowlands with dense forests growing along the valley slopes that provide a vast area for the development of forestry and livestock raising.

The Xichang and Liangshan Yi area are a corner of the Yunnan-Guizhou Plateau. More than 80 percent of the area is at an elevation above sea level of between 1,000 and 2,400 meters, which is vastly lower than the Qinghai-Xizang Plateau. This area contains the Daliang Shan, Xiaoxiang Ling, Luoji Shan, and Maoniu Shan, which lay parallel to each other running from south to north, their myriad peaks rising and falling and the ranges stretching on and on. Within the Liangshan Yi Autonomous Prefecture lies a large tract of mountain plains at more than 2,000 meters above sea level where land suitable for forestry and animal husbandry is found in broad expanses. Within the same region also lie some fairly broad mountain basins and valleys including the Anning He valley plain at a relatively low elevation above sea level (1,200 to 1,600 meters) and covering 1,800 square km, making it the second largest flatland area in Sichuan as well as an agricultural center for western Sichuan.

Though the plateau and the high and intermediate mountains that dominate the entire western region limit general development of farming activities, they provide a broad space for development of forestry and animal husbandry and have become one of the country's major forestry and animal husbandry areas.

Second Section: Soil Resources

Sichuan has abundant soil resources, but the amount and makeup of various kinds of soil resources is very uneven. The proportion of land used for forestry and animal husbandry is greatest, the two accounting for a total of more than 470 million mu, which is 55.6 percent of the total land area. The proportion used for farming and wasteland suitable for farming is smallest (approximately 13 percent); however, this is a substantial amount in absolute terms. Water surfaces are relatively scarce, and water surfaces where aquatic products may be bred are particularly limited: less than the relative proportions and absolute amounts in most provinces and regions of the country. In addition, the proportion of inhabited sites, roads, land used for industry and mining and for other activities of no direct value to agriculture is fairly large (approximately 30 percent). The area devoted to activities of no direct value to agriculture is alone in being nearly the cultivated land area of the whole province. This makes the utilization rate for land resources in Sichuan markedly lower than for other provinces and regions in the eastern area. (See Table 2)

Table 3. Structure of Sichuan's Land Resources*

Land resource	Area (10,000 mu)	Percent of total land area	Remarks
Cultivated land	10,029	11.78	Unfarmed land area was 99.82 million mu in 1978
Including: Wetlands	4,990		
Drylands	5,029		
Forestland	22,771	26.75	
Including: Dense forests	11,190		
Sparse forests	2,282		
Bushes	8,880		
Immature arrested area	410		
Meadowland and turfed slopes	24,564	28.85	Net amount suitable for pasturing is 169.5 million mu
Including land suitable for forests	7,614		
Wasteland suitable for farming	900	1.06	
Including: River flats	140		
Water surfaces	1,424	1.67	
Inhabited sides and land used for roads, industries, and mines	16,609	19.61	
Other	8,755	10.28	Land of virtually no value for agriculture (e.g., snowy mountains, alpine glaciers, rocky mountains, and precipices)
Total	85,140	100.0	Total land area is 567,600 square kms

*This table is based on the collection and compilation of data from many sources. Data on total land area uses numerical values figured by the Topography Section of the Chengdu Institute of Geography.

1. Farmland

A. Amount, Makeup and Distribution of Farmland

Sichuan Province has approximately 100 million mu of farmland (evenly divided equally between wetlands and drylands), the fourth largest amount for all provinces and regions. This includes the country's largest wetlands area. The amount of farmland is decreasing year by year through the takeover of land for cities, industrial plants and mines, transportation, water conservancy, and other construction in villages. Even with the addition of some land newly reclaimed for farming, the province's farmland area in 1977 was still 14.78 million mu (13 percent) less than in 1957. This, plus steady increase in the agricultural population, has meant a decline in the amount of farmland per capita from the 2 mu of 1949 to 1.17 mu (Footnote 1) ("Per capita" means per capita of rural population, and the same hereinafter) and an ever increasingly serious shortage of farmland. The climate, landforms, and soil vary from place to place, the density of farmland distribution is uneven. In the Sichuan basin, the farmland reclamation index is generally fairly high at approximately 30 to 40 percent, particularly in the area around the middle of the plain at the western end of the basin, (the Chengdu plain) where the reclamation index is as high as 60 percent. In the various counties in the mountains surrounding the basin, the reclamation index averages 10 to 20 percent. In Xichang Prefecture and in the Liangshan Yi Autonomous Prefecture, the farmland area amounts to only between 5 and 10 percent of the total land area. Farther westward and northward, the reclamation index further declines. In the southeastern part of Garze Zang Autonomous Prefecture and in the Aba Zang Autonomous Prefecture, where there are high mountains and deep valleys, the reclamation index is only 1 to 5 percent. In the northwestern plateau region, it is less than 1 percent. This includes Shiqu County where the reclamation index is zero.

There is a great difference in the ratio of wetlands to drylands as well. Eighty-five percent of the province's wetlands are concentrated at the bottom of the Sichuan basin, mostly on the plain at the western end of the basin and in the gradual-incline hill section at the southern end of the basin. In the former, the land is flat and laced with streams making for easy irrigation. Wetlands here account for between 80 and 90 percent of the farmland. In the latter, hills undulate and, historically, reliance has been placed on small dammed ponds for irrigation and for the impounding for local fields of autumn and winter precipitation to maintain plant growth. Here the proportion of wetlands averages around 70 percent. This is the area with the greatest distribution of winter wetlands in the province. In the middle reaches of the Tuo Jiang and the Fu Jiang, the percentage of wetlands is only approximately 30 percent, and the wetlands are concentrated mostly in low-lying trough areas among the hills. Since hillsides and mesas lack water sources, during winter and spring drought and when the climate is dry in summer, it is also difficult to store water for local fields, hence the large amount of drylands. The slope of the mountains surrounding the basin is fairly great and wetlands are fairly scarce there. Mostly they are found in river valleys and near streams. In the western area, the proportion of wetlands is fairly high (approximately 70 percent) only in Xichang, Dechang, and Miyi Counties. In all other autonomous prefectures and counties, most of the farmland is dryland because of the elevation of the land and the relatively low temperatures. This is particularly true in the northwestern parts of Garze Zang and Aba Zang Autonomous Prefectures where there are virtually no wetlands.

B. Farmland Quality

Farmland quality is determined largely by soil, water, fertilizer, and gradient. Only farmland that is superior in all four of these ways is able to meet the high quality standards for flatness, soil, thickness, fertility, and ability to be irrigated and drained. Judged by these standards, only a very small portion of the farmland in Sichuan Province is of high quality.

(1) Farmland gradient and degree of certainty of water conservancy

A look at the gradient of farmland shows that virtually all wetlands meet the requirement of "flatness." However, approximately 70 percent of drylands are on hillsides from which water, soil, and fertilizer runs away; 63 percent of these drylands have a gradient of between 11 and 30 degrees, and 22 percent have a gradient of more than 30 degrees. In some mountain regions, in particular, the gradient of slopes is approximately 50 degrees as, for example, some that hang like a tapestry halfway up mountains that are termed "hanging fields." Hillside farmland accounts for approximately 35 percent of total farmland in the province amounting to more than 35 million mu. Approximately one-half of this is found in mountains surrounding the basin and in the western part of Sichuan. The other half is found on low mountains and hills within the basin.

The extent to which water conservancy may be guaranteed is low, making this one of the major weaknesses for farmland in Sichuan. The effectively irrigated area for the whole province is 42.3 million mu. The area from which a crop can be guaranteed despite drought or waterlogging is only 21.9 million mu, or less than 0.26 mu per capita. Furthermore, more than 40 percent of the wetland field area cannot be irrigated. This includes hill areas within the basin where the irrigated area averages only about 40 percent of the farmland and where the farmland from which a crop is assured despite drought or waterlogging is less than 20 percent. In mountain regions, the percentage is even less. Only on the plain at the western end of the basin can virtually all the farmland be irrigated, and most can assure a crop despite drought or waterlogging.

(2) Farmland soil structure and characteristics

More than 90 percent of the farmland soil in Sichuan is purple soil, alluvial soil, and red or yellow earth. Purple soils are found over a wide area within the basin and on the fringes of the basin in hill and low mountain areas at an elevation above sea level of between 600 to 800 meters or less, and covering approximately 50 million mu in area. It accounts for

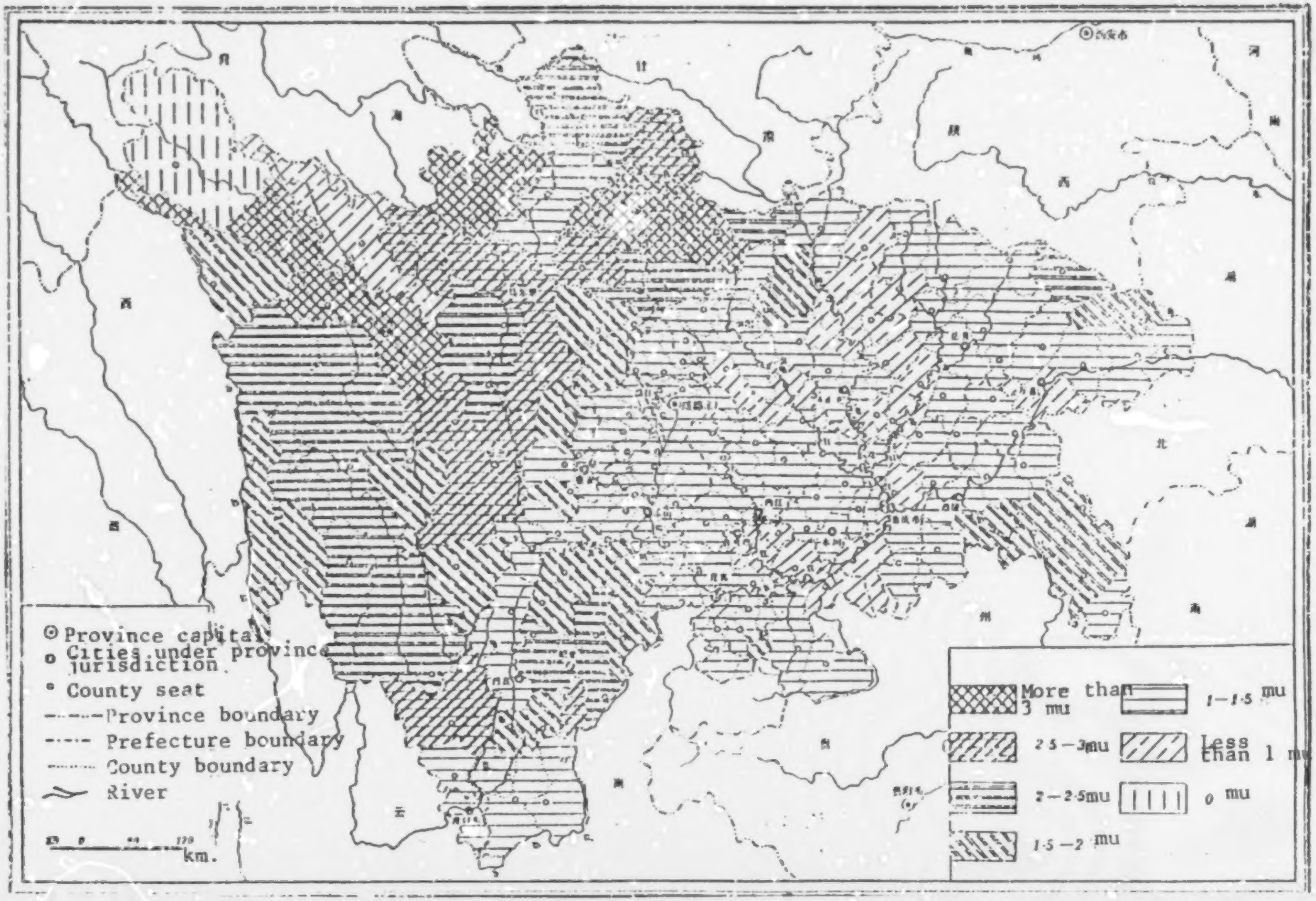

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
More than 3 mu
2.5—3mu
2—2.5mu
1.5—2 mu
1—1.5 mu
Less than 1 m
0 mu

Figure 3. Map Showing Farmland Area Per Capita of Agricultural Population in Sichuan Province

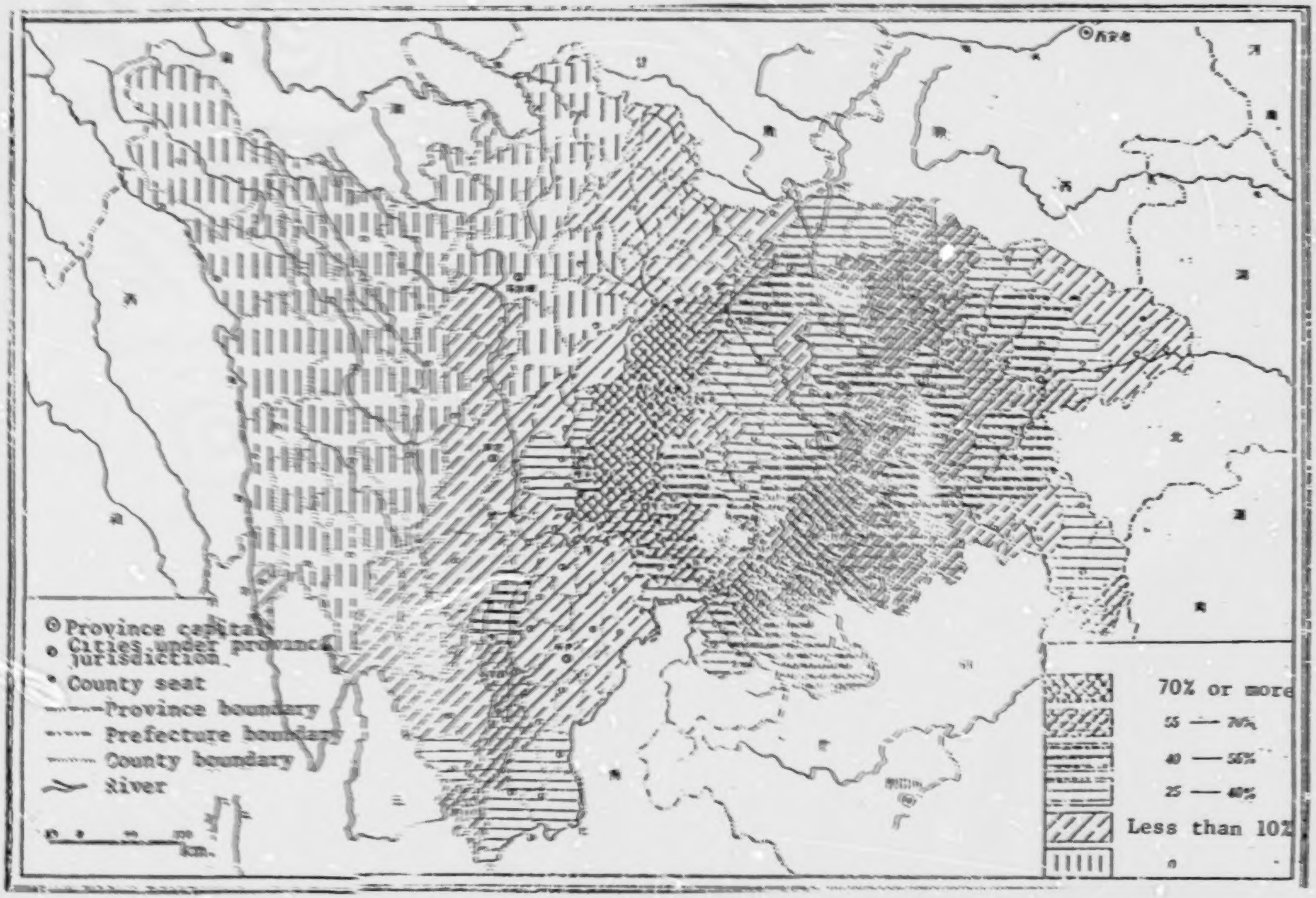

Province capital
Cities under provincial jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
70% or more
55 — 70%
40 — 55%
25 — 40%
Less than 10%
0

Figure 4. Map Showing Ratio of Wetlands To Farmland Area

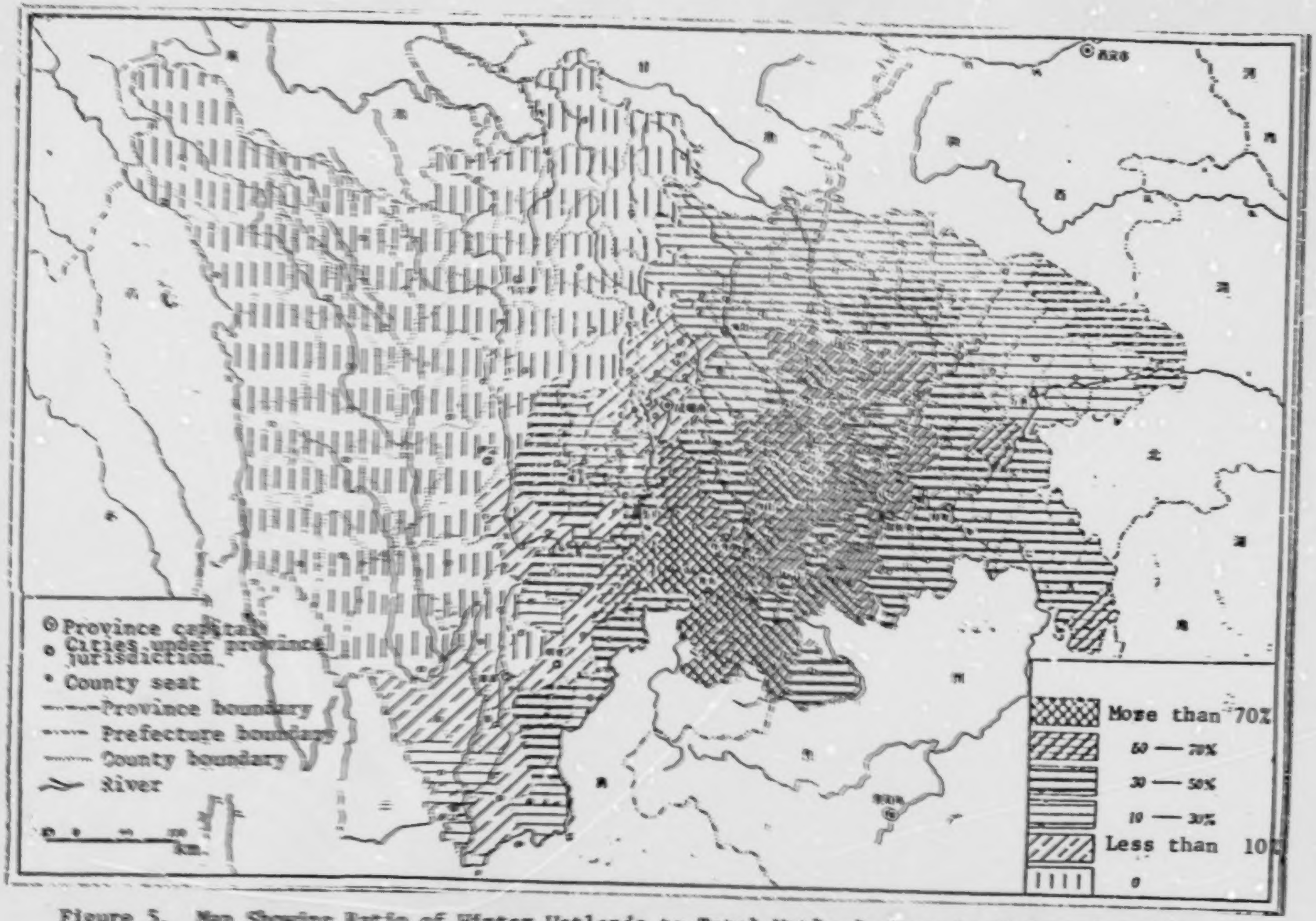

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
More than 70%
50 — 70%
30 — 50%
10 — 30%
Less than 10%
0

Figure 5. Map Showing Ratio of Winter Wetlands to Total Wetlands Area in Sichuan Province

one-half of the whole province's farmland and is made up mostly from sand and weathered shale. Most of it is neutral or calcareous purple soil with a fairly high mineral nutrient content. It is particularly rich in phosphate and potash. The quality of most of the soil is fair and it is porous for the passage of water and air, suiting it to the growing of grain and cash crops. Alluvial soil is found mostly on the plain at the western end of the basin and on both banks of streams over approximately 14 million mu in area. The source of its mother material is Quarternary Period river sediment. It tends to be medium to slightly coarse and generally nicely permeable, which suits it for farming. In addition, soil temperature is fairly high and nutrient content abundant. Red and yellow soils are found in different kinds of agricultural regions including flatlands, mesas, hills, and mountains over approximately 31 million mu in area. They are characteristically clayey, acidic, cold, infertile, and lacking in phosphate. Wetland soils are the aforementioned soils that have evolved through human use. Their content of organic matter is 86.45 percent higher than for dryland soils; their pH value is neutral and their mineral content is generally relatively high. The area of other kinds of farmland soils is very small, amounting to less than 10 percent of the farmland in the whole province and found mostly in Sichuan's western mountainlands.

It is worth noting, in particular, that approximately 45 percent of the aforementioned farmland soils are low-yield soils (including nearly one-third of low yield wetland soils). Their yields are generally between 30 and 40 percent lower than ordinary soils and thus they have become a major element affecting farmland quality. Low-yield farmland soils may generally be divided into three kinds as follows: Heavy clayey soil, stony soil, and sandy soil. The clayey soil is mostly red and yellow type soil including baishan [4101 7668] soil, huangni soil, purple dead large soil [4793 5331 2984 1129 0960], gummy red mud, and gummy yellow mud covering a 30-million mu area. The baishan soil and the huangni soil are found mostly in the hills and mesas on both sides of the plain at the western end of the basin. The purple dead large soil is scatter in hill regions throughout the basin. The sticky red mud is concentrated in the Anning He valley in western Sichuan and on both banks of the Jinsha Jiang. The sticky yellow mud is found mostly in the mountains surrounding the basin. Their common characteristics are clayeyness, strong water-holding properties, "like a knife when dry and like paste when wet," infertility, phosphate deficiency, low soil temperature, poor aeration, slow reaction to fertilizer, and low yields. Stony soil is found largely in purple soils over approximately 10 million mu in area, most in the upper strata of hills in the middle and northern parts of the basin. Since this soil has a 50-percent or greater stone-particle content, its absorption properties are poor, it has poor resistance to abrasion, and the soil is less than 1 chi thick making it prone to drought. Its organic matter and nitrogen content is only 25 to 50 percent that of ordinary purple soils; thus crop yields are very low. Sandy soils are mostly alluvial soils (river sand soils), but some are other kinds of soil (such as red sandy soil and mountain sandy soil) which together cover approximately 5 million mu in area. River sand soils are found along rivers in a thin layer that is very sandy, is unable to retain water or fertilizer, is unable to tolerate drought, is prone to damage from flooding, and produces low and inconsistent yields.

Though wetland low yield soils have been included among the foregoing low-yield soils, the effects of long-term drowning and of the terrain itself, in some cases have endowed them with certain unique characteristics which limit the utility of farmland of this kind. Trough fields, cold water-logged fields, yashini [7700 1452 3136] fields, blue mud fields and nitrate fields are all major kinds of low-yield fields in Sichuan that share the characteristics of being low-lying, shaded, having a high underground water table or not capable of being drained well. As a result of having been waterlogged for a long time, soil temperature is low; aeration is poor; microorganism activity is weak; breakdown of nutrients is slow; the soil has a poor structure or is lacking in structure; some have a thick layer of muck; tilling is difficult; paddy rice cannot put down roots easily; growth is slow and yields are very low. As a result of the overly large amount of ferrous salts derived either from the sources of water for irrigation or from the parent material from which the soil was formed, after being drowned for long periods of times, the nitrate fields are prone to produce a "multiplication of nitrate" that creates acidity and toxicity around rice roots leading to "sitting autumn" and producing yields that are low and inconsistent.

In short, in an overall sense, quality of Sichuan's farmland is not sufficiently high, the amount of farmland of poor quality amounting to a very large proportion of the total and requiring strenuous efforts to improve it.

2. Forestland (Footnote 2) (Includes brushwood mountainlands)

Table 3 shows that despite the very broad area covered by forestlands in Sichuan, the dense forest area amounts to only one-half of the total. The remainder consists of brushwoods, sparse forests and immature newly afforested land; hence, the forest-cover rate for the province as a whole is no more than approximately 13 percent, which is only slightly higher than the national average.

Sichuan's forestlands are distributed very unevenly. If a line drawn through Qingchuan, Ya'an, and Muchuan is taken as a boundary, the area to the west of it would contain from 70 to 75 percent of the forestland and the sparse forestland in the whole province, and approximately 90 percent of the brushwoods. To the east of the line in the Sichuan basin and in the mountainlands to its north, east, and south, the forestland area is miniscule, particularly in the hills and flatland areas within the basin where forest tracts are extremely scarce.

Forestland is land in which forest resources are concentrated. Forestlands include timber forestlands as well as tracts of economic forests and bamboo forests, both natural forests and forests grown by man. The percentage of timber forests and natural forests is greatest in the province, accounting for 95 percent and 90 percent of the total forestland area, respectively.

Moreover, among natural forests, primeval forests are an overwhelming majority. Consequently, forest reserves per unit of area in Sichuan's forestlands is very high, and the use value that can be generated is very great. However, they are concentrated in the high mountains and gorges of southeastern Garze Zang Autonomous Prefecture and Aba Zang Autonomous Prefecture where transportation is virtually nonexistent making the work of exploiting the resources difficult. (For details on dense forest resources and their development for use, please see Sections 2 and 3 of Chapter 5.)

The sparse forest area accounts for approximately 20 percent of the total forest area. Since forest trees are sparse, reserves are less than 6 percent of the total for forestlands; thus, their utility is fairly low. A considerable portion of this area is secondary growth or leftovers in forestland where sprase forests have grown following destruction of previous forests. On the other hand, they are found at fairly low elevations (along the middle and lower levels of hillsides). With better care and nurturing, plus introduction of some new varieties of trees for mixing in with the existing ones, further improvement could be made. In addition, since conditions are poor for the growth of forest stands in the high mountains or near the upper limits of dense forests in the west, frequently sparse forests have developed.

The area of brushwoods in Sichuan Province is very large amounting to approximately 89 million mu, which is approximately 40 percent of the total forestland area. Brushwoods are of three main kinds namely, scrub forests in the high or semihigh mountains where the bushes consist of many varieties of azaleas and rhododendrons, high mountain spirea japonica, jinlamei [6855 5198 2738], barberry [Barberis thunbergii], cotoneaster, high mountain willow [7559 1469 2692], and honeysuckle for the most part, most of which occur in Garze Zang Autonomous Prefecture and Aba Zang Prefecture from an altitude above sea level of 3,000 meters or more to above the limits where dense forests grow. Second is river valley dry scrub forests consisting primarily of cryptotaeneous cinquefoil [Potentilla cryptotaeniae], five-leaved chaste trees [Vitex negundo], Caragana sinica, tieganhao [6993 2616 5548], and members of the rose family, most of which occur in the valley of the Jinsha Jiang at below 3,000 meters above sea level, in the middle and lower reaches of the Yalong Jiang and the Dadu He at below 2,600 meters above sea level, and in the upper reaches of the Min Jiang at below 2,200 meters below sea level. Third is semitropical secondary scrub forests consisting predominantly of either Caragana sinica or aihuanglu [4253 7806 5260], Corsiaria sinica, lily magnolia, shrub lespedeza [Lespedeza bicolor] and winter daphne [Daphne odora], and which are seen occasionally on relatively dry sunny slopes in semitropical mountainlands (at below 1,500 meters above sea level). Since brushwoods lack timber reserves, except for some that provide firewood or forage for goats, generally they are significant only in conserving water and soil. Thus, they should become future objects for improvement through afforestation (except for brushwoods in high mountains).

Immature afforested mountainlands are not numerous, amounting to only 1.8 percent of the total mountainland area. Afforested areas are found in just the opposite places from the aforementioned several kinds of mountainlands, two-thirds of them in the east and one-third in the west. This shows that the pace of new afforestation of places in Sichuan that formerly lacked forests is proceeding relatively rapidly.

3. Meadowlands and Turfed Slopes

Sichuan's area of meadowland and turfed slope is very widespread. Rough preliminary calculations show somewhat more than 240 million mu of usable area including approximately 76 million mu of meadowlands suitable for grazing, forestry (or farming) (such as hillsides below the dense forest line, grasslands along mountain ridges, grasslands among forests where dense forests have been cut, and grasslands in broad valleys on the plateau and in the basin that are suitable for bringing under cultivation to plant crops). There is an additional approximately 170 million mu of meadowlands purely suitable for grazing. This is vast land for development of animal husbandry in Sichuan.

A. High Mountain Scrub Forest Meadowlands

These are found largely on the Serxu and Sertar plateaus in the northern part of Garze Zang Autonomous Prefecture and in high mountain areas to the south at between 4,200 and 4,700 meters above sea level, i.e., above the limits of dense forests covering a usable area of 64 million mu. Varieties of pasture grasses are fairly few (and pulse pasture grasses are extremely scarce), sedges and weeds predominating. Frequently seen are grasses that tolerate grazing fairly well such as artemesia and Dactylis glomerata, yields of which are high, as well as vertical spike jijian grass [0987 4482 2126 4354 5430], Roegneria kamoji, and early maturing grasses that may be cut for hay, and a variety of grasses with a heavy fresh weight such as mountain knotweed, artemesias, and mountain leeks. Because of the high and cold topography, pasture grasses have only an approximately 100-day growing season, so most meadowlands can be grazed only during summer and fall. Winter meadows are limited to river valleys and to sunny slopes in the foothills of the mountains; thus there is a shortage of winter pasturage and there is overgrazing, with the result that quality of pasture grasses has regressed. In order to solve the problem of insufficient fodder during winter and spring, suitable areas in broad valleys and basins should be used for the active building of manmade fodder bases.

B. Semihigh Mountain Dense Forest Grassy Meadows

These are found in the northwestern part of Aba Zang Autonomous Prefecture and in the central part of Garze Zang Autonomous Prefecture (south of Serxu and Sertar, mostly at between 2,700 and 4,000 meters above sea level (Aba Zang Autonomous Prefecture) and at between 3,000 and 4,200 meters above sea level (Garze Zang Prefecture) on 85 million mu of usable area, making it the meadowland with the largest area and the greatest utility in the whole province. Mostly it is used for the pasturing of yaks, sheep, and horses.

Varieties of pasture grasses are very numerous, and wild growing pulse pasture grasses are also seen fairly frequently. Principal pasture grasses are xiao haocao [1420 5548 5430], xiao taicao [1420 5548 5430], zhuya liao [3796 5370 5578], xiao jidou [1420 2765 6258], xiao muxu [1420 5382 5581], xiangqing [7449 7230], and Festuca ovina. Since a large percentage of weeds is mixed into these pasture grasses (about 60 percent), and they are bad tasting, these grasses are not suitable for making hay. This reduces the quality of the meadowlands to a certain extent. Nevertheless, heat conditions for local meadowlands are better than for the previously mentioned kinds. The introduction of many varieties of fine pulse pasture grasses (such as alfalfa and sweet clover) could provide favorable conditions for building manmade meadowlands.

C. The Semihigh Mountain Marsh Grass Meadowlands

These are found mostly in Zoige and Hongyuan Counties in Aba Zang Autonomous Prefecture at between 3,200 and 3,700 meters above sea level on approximately 3.5 million mu of usable area. Pasture grass varieties lack diversification, consisting mostly of dahaocao [1129 5548 5430] and da heisui tai grass [1129 7815 4482 5377 5430], with a small amount of sedges and miscellaneous other grasses. Though the aforementioned grass varieties sprout earlier than others, they form spikes within a short period of time, making the grass so tough livestock do not like to eat it. Because the area is overcast and wet, insect pests (mostly parasites) pose a serious threat to livestock; thus such meadowlands may be used only in spring for grazing and their utilization rate is very low. Wet low-lying land that has become marshlike must be drained and improved before it can be used.

D. Dry River Valley Scrub Forest Meadowlands

These are found mostly in high mountain and gorge areas of western Sichuan in certain dry river valleys, such as below Batang on the Jinsha Jiang, below Xinlong on the Yalong Jiang, below Jinchuan on the Dadu He, and below Gunao on the Min Jiang. Since most of the land on gentle slopes has been cleared for farming, such meadowlands are found only on steep valley slopes where pasture grasses and scrub forests intermix. The usable area totals somewhat more than 6.2 million mu. Common pasture grasses are members of the artemesia family, Eragrostis pilosa, Pennisetum alopecuroides, and wild roses, all of which are thorny bushes, which makes them poor quality grasses on which only goats can pasture. Their average yield is also the lowest. Such meadowlands are also suited to being forestlands.

E. Meadowlands Among Mountainland Forests

Scattered here and there in Xichang, Liangshan, and in mountains surrounding the basin, these meadowlands are interspersed among dense forests, most of them having come into being following destruction of dense forest, or else occupying wasteland in mountain regions. Since heat conditions are fairly good, there is a large variety of pasture grasses and fine quality grasses. There is also a large amount of sedge grasses, miscellaneous grasses, and pasture grasses that produce high yields. This is a range where agricultural region livestock can graze yearround. This type pastureland is also suitable for forests.

4. Wastelands Suitable for Agriculture

Wastelands suitable for agriculture as used in this context means land other than river flats that is actually grassland (or turfed slopes). Nevertheless, these grasslands differ from grasslands useful solely as pasturelands. They may be used not only for grazing but can also be opened to farming; thus they require separate listing.

No comprehensive survey of wastelands suitable for agriculture in Sichuan has been done for more than 20 years, so it is not clear just what resources are available. Rough statistics show approximately 9 million mu of wasteland (including 1.4 million mu of river flats) throughout the province as being suitable for agriculture. Of this wasteland, 42 percent is concentrated in the Aba Zang, Garze Zang, and Liangshan Yi Autonomous Prefectures and in the Xichang area, including upward of 1.5 million mu in Aba Zang Autonomous Prefecture alone; 23 percent is found in Daxian, Wanxian, and Fuling Prefectures in eastern Sichuan; 11 percent is found in Mianyang and Wenjiang Prefectures in the northwestern part of the basin. Very little is found in other prefectures or cities, only one-fourth the total for the whole province. (Footnote 3) (Based on figures reported by cities, prefectures, and autonomous prefectures themselves at the National Farmland Capital Construction Conference in July 1978)

In northwestern Sichuan (Aba Zang and Garze Autonomous Prefectures), an overwhelming majority of the wasteland is located on the plateau at between 3,000 and 3,700 meters above sea level where the terrain is flat and broad and the soil is thick, consisting mostly of meadow soil and meadow cinnamon soil that is rich in organic content. However, since the region is high and cold, with a very short frostfree period, most of this soil is not suitable for the growing of grain crops. It can be used only to grow cold-tolerant cash crops, such as sugarbeets and rape. Most of this wasteland lies in continuous tracts, almost 1 million mu of it in Hongyuan and Zoige Counties alone, making it most suitable for mechanized cultivation. Since it is a natural meadowland, it will be necessary to handle well the relationship between livestock raising and farming when it is brought under development, for a good mix of farming and animal husbandry.

The wasteland in southeastern Sichuan is located mostly in basins among mountains or in semimountainous areas at between 2,000 and 2,500 meters above sea level in fairly concentrated areas. There are several hundred thousand mu in the Yanyuan basin alone. Here heat conditions are sufficient for the growing of corn and winter wheat; however, precipitation is scant during winter and spring, so multiple cropping of crops sown in late autumn for winter growth is impossible without irrigation. The soils here are largely of the red and yellow kinds and are relatively lacking in fertility. Thus, in the process of development, major efforts must be made to improve water conservancy and soil; otherwise results will be miniscule.

In eastern Sichuan, northern Sichuan, and in the northwestern part of the basin are fairly large tracts of wasteland, most of which is at between 1,400 and 2,000 meters above sea level on broad mountain tops or ridges, where the climate is fairly cold, overcast, and wet making these places suitable only for the growing of a single crop of corn or potatoes. Other fairly small tracts of wasteland are scattered on hillsides and the tops of mountains everywhere, most of them under ownership of communes and brigades, and most of them interspersed among dense forests. Better management should be exercised over these wastelands, strictly guarding against bringing them under cultivation indiscriminately or destroying the forests to open up farmland.

Streams are numerous in hill and flatland areas where the terrain is fairly level. Though there is extremely little wasteland suitable for reclamation in these areas, there is a fairly large amount of river flats that can be developed. Since the layer of soil on river flats is too thin (or since they may have no soil at all), and since they are regularly inundated by flood waters, dikes will have to be built against flooding; fill dirt brought in from elsewhere, and increased fertilization given in a series of measures to improve the flats that entail a substantial amount of engineering. Nevertheless, since they are at a low elevation above sea level and the lay of the land is flat, since they are close to sources of water where water and heat conditions are good, and since there is an ample labor force in places where they are located, it should be easy to organize a mass campaign to reclaim farmland from the rivers. Once this farmland has gone into production, garden-style fields that produce high yields from multiple crops each year could be built within 2 or 3 years, producing fairly high utility from their development.

To summarize the foregoing, conditions for the reclamation of wastelands suitable for agriculture in Sichuan Province are generally poor. An overwhelming majority of places having wastelands are located in fairly remote plateau and mountain regions where population is scarce and transportation virtually nonexistent. In addition, some of these places are high and frigid, or cold, or arid and without water, or the soil is infertile, posing fairly severe hardships for their development. In particular, since the foregoing wastelands (river flats excepted) make fairly good pasturelands or lands suitable for forestry, competition between farming and forestry and between farming and livestock raising to use them poses pronounced conflicts. Therefore, before reclamation of most of these wastelands begins, how they will be developed must be thought out carefully. Ideally, clarification of the basic situation in them should be used as a basis for the preparation of tract-by-tract assessment and utilization plans, handling each tract by suiting general methods to specific circumstances.

Chapter 2. Historical Changes in Sichuan's Agricultural Production

Second Section: Magnificent Accomplishments on the Agricultural Front Since Liberation

The revolution emancipated productivity, and the revolution gave impetus to the development of productivity. Under leadership of the CPC and Chairman Mao, the Chinese people overthrew the evil rule of the "three big mountains" [imperialism, feudalism, and bureaucratism], Sichuan becoming liberated thereby. Next, the party led the broad masses in carrying out a mighty movement of land reform and the collectivization of agriculture, which brought the peasantry gradually to the broad road of socialism. Following the thoroughgoing smashing of the criminal plots of Lin Biao and the "gang of four" to restore capitalism, in particular, the position of socialism in rural villages was further consolidated and strengthened, thereby releasing large amounts of agricultural productivity, arousing enthusiasm for production among the broad masses of commune members, and advancing steadily the vigorous development of agricultural production.

1. Simultaneous Emphasis on the Five Occupations for All-Round Development

Since liberation, very great accomplishments have been scored in farming, forestry, animal husbandry, sideline occupations, and the fishing industry in Sichuan Province. The gross output value of agriculture and the output value of the individual sectors of farming, forestry, animal husbandry, sideline occupations, and the fishing industry increased between one- and several-fold between the eve of liberation in 1949 and 1977, and increased between 30 and more than 100 percent between 1964 and 1977. The increase in output value was fastest in the fishing industry, which formerly had had the weakest foundation. Comparison of 1977 with 1949 shows relative stability of the farming industry throughout the province in agriculture as a whole, a decline in the percentage of sideline occupations (but an increase in their output value), and a marked rise in the percentage of forestry, animal husbandry, and the fishing industry. However, there was virtually no change in the overall percentage of the farming industry to all other industries.

In 1973 and in 1975, Sichuan Province's gross output of grain went over 50 billion jin. In 1977, Sichuan's gross output of grain reached 56 billion jin (Footnote 1) (In 1978, gross output of grain throughout the province increased further to 61.2 billion jin, up 9.3 percent from 1977) in an increase of 87.4 percent and 43.6 percent over 1949 and 1965, respectively. With the rise in production, the number of cities and counties with grain yields surpassing "The National Program for Agricultural Development" rose from 16 in 1972 to 58 in 1977. (Footnote 2) (In the high and cold areas of Garze Zang, Aba Zang, and Liangshan Yi Autonomous Prefectures, grain production outstripped "National Program for Agricultural Development Standards" with yields of 400 jin per mu) This included Wenjiang Prefecture plus 13 counties and cities, namely Wenjiang, Xindu, Guanghan, Chengdu, Pixian, Shifang and Mianzhu Counties, Yibin City, Mingshan, Pengshan, Pengxian,

Table 13. Makeup and Changes in the Output Value of All Agricultural Sectors

	1949		1977		1977 vs 1949
Sector	Output value (100 million yuan)	Makeup (percent)	Output value (100 million yuan)	Makeup (percent)	Increase (Number of fold)
GVAO	36.19	100.00	109.41	100.00	2.02
Farming	26.33	72.80	80.77	73.82	2.10
Forestry	0.67	1.90	2.85	2.60	3.25
Animal husbandry	4.70	12.99	17.48	15.99	2.72
Sideline occupations	4.49	12.30	8.02	7.33	0.79
Fishing industry	0.004	0.01	0.29	0.26	79.55

Remarks: 1) 1949 output value based on constant 1952 prices.
2) 1977 output value based on constant 1970 prices.
3) GVAO in 1978 was 11,917,000,000 yuan including 8,762,000,000 yuan from the farming industry.

Shuangliu, and Hongya Counties, with yields of more than 1,000 jin per mu. Gross output of major grain crops including rice, wheat, and corn also broke the all-time high marks. Comparison of 1977 with 1949 showed a 52.1-percent increase in gross output of paddy, a more than doubling of the outputs of sweet potatoes and corn, and a 2.3-fold increase in the output of wheat. Yields per mu rose by between 60 and 140 percent. Simultaneous with the rise in grain production was development of cash crops at a greater speed. In 1977, 13.66 million mu was devoted to cash crops throughout the whole province, 62 percent more than in 1949. This included a 77-percent increase in cottonfields and a manifold increase in the growing areas for sugarcane, flue-cured tobacco, and jute. Outputs of the major cash crops of cotton, rape, sugarcane, and flue-cured tobacco increased tremendously. Cotton output increased 7.6-fold; rapeseed output doubled, and outputs of sugarcane and flue-cured tobacco increased 1.5- and 18-fold, respectively. Expansion of agricultural production not only improved the standard of living of the people throughout the province, but also gave powerful assistance to the building of socialism in the nation.

Since liberation, the people throughout the province have actively responded to Chairman Mao's mighty call to "make the motherland green," vigorously carrying out the task of planting trees for afforestation. As of the end of 1976, the province's afforested preserve area amounted to 33 million mu (including 1 million mu of economic forests), the replanting of 2.6 million mu of slash and the maintenance of 5 billion trees growing in the "four besides" [besides villages, streams, roads, and houses]. Simultaneous with the felling and replanting of trees in the high mountain forest areas of the west, emphasis has also been placed on the development in the Sichuan basin region (and particularly in the forested mountain area around the basin) of fast-growing timber forests containing mostly Chinese juniper and pine, and economic forests primarily for the production of wood oils and tea oil, plus the corresponding building of a number of bases (or base counties). This has changed, to a certain extent, the imbalance in distribution of forest resources. Production of timber and most economic forest products has greatly expanded since the period immediately following liberation, particularly the output of tea, citrus fruits, apples, and walnuts, which in 1977 surpassed or were close to the all-time high levels. This included a fourfold increase over 1949 and a more than doubling over 1965 in the output of tea, with a manifold expansion in the new tea plantation area. State purchases of citrus fruits, apples, and walnuts were from several times to 90 times greater than during the period immediately following liberation. Development of forestry has succeeded in maintaining soil and water and protecting farmlands, while also providing large quantities of timber, fuel, fertilizer, animal fodder, and capital for promotion of the development of farm, animal husbandry, and sideline occupation production.

Simultaneous with the development of farming and forestry production has been fairly rapid development of animal husbandry production, very great increases having taken place since the period immediately following liberation in both the total number of livestock and in numbers of different breeds of livestock. Increase in hogs, sheep, and goats has been particularly rapid. As livestock have increased, there has also been a marked increase in state procurement of all kinds of livestock products. Comparison of 1977 with 1952, for example, shows an 89-percent rise in hog bristles, a 1.6-fold increase in hog casings, 2.8- and 6.4-fold increases in goat skins and cowhides, and a 19-fold increase in sheep's wool for a major contribution to the building of socialism in the nation.

Sichuan has traditionally had many sideline occupations. In addition to the processing of agricultural products, short-haul transportation, hand weaving, hunting, and trapping, it has had mostly the raising of silkworms, beekeeping, breeding of wax insects, the gathering and growing of medicinal herbs, plus the culturing of tremella and wood fungus, etc. The raising of silkworms has become the principal sideline occupation and the main source of income in some agricultural areas. In 1972, output of silkworm cocoons surpassed the all-time high year (1936 with 564,000 dan), and in 1977 output reached 878,000 dan (including 864,000 dan of mulberry silkworm cocoons), a nearly eightfold increase over 1949. (Footnote 3) (In 1978, the province's output of silkworm cocoons exceeded 1 million dan in one fell swoop for a new record) Purchases in recent years of honey, medicinal herbs, and tremella have surpassed record highs, increasing between one- and severalfold since before 1966.

Fishing industry production has also expanded very quickly. In 1977, the province reared fish of a water surface area of 2.2 million mu and output reached 982,000 dan (including 159,000 dan of catches from rivers), a 7.5-fold increase over 1952 and a 79-percent increase over 1965.

Table 14. Rate of Increase in Numbers of Livestock (1949 = 100)

Livestock	1949	1965	1977
Total number of livestock	100	210	313
Hogs	100	246	364
Cattle	100	135	163
Sheep and goats	100	270	363
Goats	100	310	395
Sheep	100	216	320
Horses	100	97	141

Flourishing production in farming, forestry, animal husbandry, sideline occupations, and the fishing industry has brought about a steady increase in rural villages' public accumulations and the incomes of commune members. In 1977, public accumulations of rural villages throughout the province reached 1,543,000,000 yuan for a 69-percent increase over 1973. Commune member per capita real income increased 43 percent over 1965, double the 1957 amount for a further strengthening of the collective economy and improvement in the standard of living for greater consolidation of the rural socialist front.

2. Steady Expansion in the Scale of Farmland Capital Construction

Good performance in farmland capital construction and improvement in agricultural production conditions are mighty undertakings in the rapid development of socialist agriculture. The broad masses of cadres and commune members in Sichuan have launched an all-out effort to subdue nature, starting with major efforts to tackle mountains, streams, fields, forests, roads, and marshes in a comprehensive way in order to bring water under control and improve the soil, and they have steadily changed the former condition of Sichuan's mountain streams.

In recent years, every winter and spring a mighty 10-million-strong army has struggled on the broad front of farmland capital construction throughout the province. This has included more than 50,000 farmland capital construction teams made up of more than 4 million people who work without letup all year round. During the past three winters and springs, in particular, a work force of more than 15 million, or approximately 45 percent of the total agricultural labor force has been fielded. This has greatly exceeded any previous year in terms of both momentum and scale.

Construction of water conservancy is a key measure for increasing agricultural production in Sichuan. The building of water conservancy projects has developed fairly greatly as a result of firm adherence to a program of "taking smallness in scale, complete equipping, and operation by communes and brigades themselves as key links," plus following the principle of a combination of the large, the medium, and the small, a combination of storage and diversion of water, suiting general methods to local situations, self-reliance, and uniting to harness waters. As of the end of 1977, more than 10,000 mu of water diversion projects had been built at 89 locations, including 7 locations that had projects covering more than 300,000 mu, and 3 locations that had projects covering between 100,000 and 300,000 mu; 1,239 reservoirs covering an area of more than 1 million mu (including 2 large reservoirs and 78 medium-size reservoirs); 17,778 permanent electromechanical irrigation stations, and 2,552 water-wheel pumping stations; and small irrigation ditches, dams, ponds, dikes, well irrigation, and other irrigation projects at more than 900,000 different locations for the preliminary formation of large- and medium-size projects as the backbone of a water conservancy and irrigation system combining the large, the medium, and the small, and combining storage, diversion, and lifting of water. This has brought the irrigated area of the province to 42.32 million mu. This includes 32.73 million mu on which irrigation can be assured, a 5.2-fold increase over 1949 and a 47-percent increase since 1964. In recent years, spray irrigation has developed very rapidly in hill and mountain region drylands, with more than 2.6 million mu brought under control of spray irrigation. In 20 cities and counties throughout the province, the irrigated area covers more than 70 percent of the total cultivated area, and in 34 cities and counties, it covers between 50 and 70 percent. It is particularly noteworthy that the ancient Du Jiang Dam is also radiating youthfulness. Not only has its headwork been preliminarily transformed, but its old ditch system has refurbished to become a new project in the steady emergence of a new irrigation area. In recent years, after the people of Renshou County built the Heilongtan Reservoir in the Longquan Mountain region that is able to divert and store 300 million cubic meters of water from the Dujiang Dam, the people of Jianyang County dug a 6,200-meter-long water diversion tunnel through Longquan Shan, and the people of Deyang, Zhongjiang, and Shehong Counties victoriously completed a 183-km-long trunk canal (the seventh scheduled people's canal project). As a result of these projects, water from the Du Jiang Dam moves eastward over three routes, traverses a mountain and waters hills in the basin that have experienced drought 9 years out of 10. Today, the area served by the Du Jiang Dam irrigation area has expanded from the 12 cities and counties of the preliberation period to 27 cities and counties, and the irrigation area has expanded from 2 million mu to more than 8.5 million mu, an increase of more than 60 percent since 1965, bringing virtually all farmland in the irrigation area under irrigation.

Improvement of fields and improvement of the soil are important capital construction programs for agriculture. Soil-improvement projects in Sichuan Province got underway as far back as the period of cooperativization; however, only 3.9 million mu of fields and soil had been improved in the 15 years ending in 1970. This was an average field and soil improvement of only 260,000 mu per year. Since the 1970 North China Agricultural Region Conference, new movement has taken place in a mass campaign to improve fields and soil. Between 1971 and 1976, 14.29 million mu of fields and soil were improved (including the improvement of 5.74 million mu of soil). This meant the improvement of 2.38 million mu of fields and soil per year, an 8.2-fold increase over the average for the previous 16 years. Following the smashing of the "gang of four," in particular, during 1977 (from October 1976 through April 1977), 4.39 million mu of fields and soil were improved, surpassing the total for the 15 years prior to 1970 and increasing by 36 percent over 1975. In addition, 5.5 million mu of soil was deeply plowed and turned over, 1.09 million mu of strip fields were built, and 140,000 mu of new fields were built. The size of the results and the speed of progress was greater than in any previous year. With the steady improvement in water and soil conditions, the winter paddyfield area has decreased from the 40 million mu of the period immediately following liberation to 32.7 million mu in 1965 and 19.24 million mu in 1977. Thanks to the strengthening of capabilities to withstand natural disasters, the area of the province from which consistently high yields may be obtained despite drought or waterlogging has reached 21.92 million mu, or more than one-fifth the total cultivated land area. (Footnote 4) (In 1978, the winter paddyfield area of the province was further reduced to 14.86 million MV, and the area from which consistently high yields may be harvested despite drought or waterlogging increased to 23.48 million MV).

The making of methane gas was begun in 1958 by the people of Zhongjiang and other counties; however, sustained development did not take place at that time. It was not until after 1973 that a mass movement in production of rural methane gas developed in Sichuan. As of the end of 1972, there were only 3,000-odd methane gas pits in the whole province. By 1973, the number had expanded to more than 30,000; in 1974 to 200,000, and each year during the past several years, approximately 1 million methane gas pits have gone into production. As of the end of 1977, 4.38 million methane gas pits had been built throughout the province, and in 14 cities and counties, rural villages use methane gas. Development of this undertaking has not only helped greatly to ameliorate the fuel shortage and further emancipate the work force, but it has also increased the amount of fertilizer and promoted consistently high yields in agriculture. It has also widened avenues for development of forestry production.

3. Emergence of a New Situation Through Reform of Farming System

Reform of the farming system is a strategic measure for giving impetus to going ahead quickly in a big way in agriculture. Practice has demonstrated that it is not only a way in which to make further use of light, heat, water and soil resources, to make use of the potential for increased yields that the soil holds and to raise the multiple-cropping index, but also allows full use of advantageous seasons and avoidance of disadvantageous times, and sets the stage as well for rational crop rotation and the realization of a combination of soil use and soil nurturing for extremely marked increases in yields.

For many years leaders at all levels and the broad masses of commune members plus agricultural scientific and technical personnel in Sichuan Province

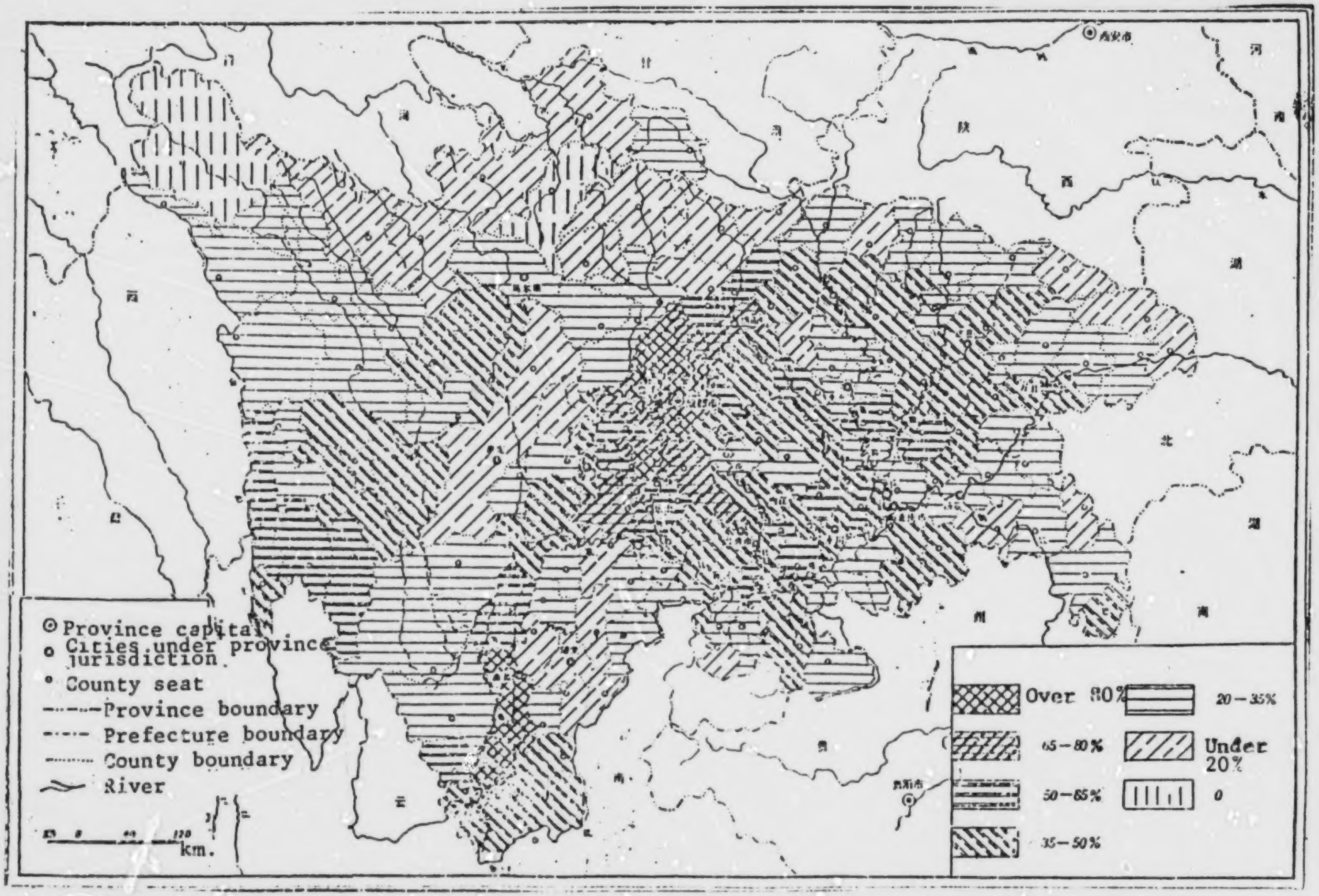

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
Over 80%
65–80%
50–65%
35–50%
20–35%
Under 20%
0

Figure 14. Effectively Irrigated Area as a Percentage of Total Farmland in Sichuan Province

have devoted very serious attention to reform of the farming system. As a result of practice in production and scientific experiments, new modes and new techniques have emerged in an endless stream. They have included quite a few that have already been or are in process of being promoted for use.

A. Reform of the Paddyfield System

(1) Where water conservancy within the basin permits, fields that now grow both dryland and wetland crops of paddy and wheat in a two-crop system should mostly grow one crop of winter wheat and two crops of paddy in a three-crop system.

(2) In order to solve problems of too short a season for the growing of two crops of paddy and the threat of spring drought in the northwestern part of the basin, active efforts should be made to promote the growing in wetlands of meat intercropped with corn followed by late paddy in a three-crop system.

(3) In hill regions within the basin where water cannot be assured on fields up the sides of hills with high embankments around them that depend on rainfall, where water conservancy is unavailable, a system of "taking the dry road when the wet road is not open" should be used for early plowing and cultivation to grow spring sown crops such as corn and sweet potatoes.

(4) In hill areas in the southeastern part of the basin, wherever water can be assured for winter wetlands, a change should be made from the growing of a single crop of intermediate rice to the growing of azolla and two crops of paddy. For winter wetlands where irrigation can be assured, the water should be drained from paddyfields and winter crops of green manure, rape or wheat grown, two crops of paddy or a single crop of intermediate paddy being grown in spring.

(5) In the eastern part of the basin, in fields for which sources of water are lacking, in order to avoid the threat of summer drought for intermediate paddy and in order to increase the multiple-cropping index, active efforts have been made in recent years to promote the growing of spring potatoes (or rape) or one crop of dryland rice and a fall crop of sweet potatoes (or fall potatoes) in a three-crop system.

(6) In fields that lie fallow during winter in mountain regions around the basin in which a supply of water can be assured, a change should be made from one crop of intermediate paddy to spring potatoes (or green manure) and one crop of intermediate paddy in a two-crop system.

B. Drylands Reform

(1) On the hill drylands within the basin, the two-crop system of wheat and corn (or sweet potatoes) should be changed to a three-crop system of crop rotation, growing wheat (intercropped with green manure) and the companion cropping of early corn and sweet potatoes in strips.

(2) On land in mountain regions that lies fallow during winter, a change should be made from the growing of a single crop of corn or potatoes each year to the companion cropping of spring potatoes with early corn in a two-crop system. Alternatively, there can be further use of a three-crop system in which spring potatoes are companion-cropped with corn followed by the growing of fall potatoes (or fall buckwheat).

(3) In recent years, active efforts have also been made on the plateau in the west from the growing of a single crop of spring wheat to the growing of Xizang feimai [5142 7796] [sown in winter]. Though this still amounts to only a single crop a year, feimai makes full use of light and heat resources, including those of the winter and spring seasons in a very long growing season for a huge increase in yields.

As a result of the various aforementioned reforms, the double-crop paddy area of the province increased from 540,000 mu in 1965 to 3.95 million mu in 1977 for a 6.3-fold increase. The area cropped to corn followed by late rice rose from less than 100,000 to 730,000 mu in 1978. As a result of the steady decrease in the area of the "three winter fields" (winter paddyfields, winter fallow fields, and winter idle fields) throughout the province, the area sown to wheat and potatoes has gradually increased. This has included an expansion of the wheat-growing area by 86 percent between 1949 and 1977, with a 57-percent expansion between 1965 and 1977. The three-crop area of intercropping in strips on drylands has expanded in recent years to more than 6 million mu. In mountain areas, very great expansion has also taken place in the growing of crops on land that has laid idle during winter heretofore.

With reform of the farming system, the average multiple-cropping index throughout the province has also risen from 153 percent in 1965 to 173 percent in 1977, (Footnote 5) (In 1978 the multiple cropping index reached 179 percent) and expansion of the multiple-cropping area has made a major contribution to development of agricultural production.

4. Gneeral Rise in Scientific Farming

In the process of the development of agriculture, all parts of Sichuan have bolstered leadership of their scientific research work in agriculture with the result that mass scientific experimentation has gained ground steadily, a scientific and technical agricultural corps made up of leaders, the masses, and technical people, and the old, the middle-aged, and the young has become increasingly vigorous. Today 80 percent of the province's cities and counties have set up agricultural science institutes; approximately 70 percent of communes and brigades have set up agricultural science stations, corps, or teams; and more than 1 million people are taking part in a campaign of scientific experiments in agriculture, experimental bases covering more than 2 million mu in area. In all the cities and counties of the Sichuan basin, a four-level agricultural science network has spread virtually everywhere.

Agricultural science organizations at all levels are in the process of actively developing a mass agricultural scientific experiment campaign that has as its main component the scientific farming of fields. Much successful experience has been gained in scientific farming as a result of arduous exploration and experimentation. This has given rise to no small amount of advanced scientific research results that has played a major role in giving impetus to the development of agricultural production.

Various places in Sichuan have developed fine varieties of paddy rice, wheat, cotton, rapeseed, and potatoes as part of their work with seeds. Paddy rice varieties "Aituogu" and "Fuxuan No 3"; wheat varieties "Fan 6" and "092"; and rape variety "Shengli No 4" have all been heartily welcomed by the broad masses and have spread quickly. Particularly noteworthy is the "62-200" cotton and the "disease-resistant Dongting cotton" bred in Shehong County that make it possible to control effectively the "incurable disease," wilt, and ranks as a fine variety of disease-resistant cotton that has been promoted throughout the country. In addition, hybrid rice and hybrid corn varieties have also gained preliminary promotion. The area growing hybrid corn has increased from 500,000 mu in 1971 to 7.6 million mu in 1977, and hybrid rice is now being grown where formerly nothing at all was grown. Beginning with test plantings in 1975, the growing of hybrid rice increased to 370,000 mu by 1977. New techniques have found steady application in farming. Examples include the breeding of "robust seedlings with many tillers" for paddy rice, the growing of corn, wheat, and cotton seedlings for transplanting, a variety of sweet potatoes the tips of whose tendrils overwinter and growing of sweet potatoes in "sun storing" hotbeds, growing of paddy rice hydroponically in hothouses, etc., all of which have produced markedly higher yields. In the scientific use of water, sensible fertilization, soil improvement, improved farming methods, prevention and control of diseases and insect pests, and the improvement of farm machinery and implements, agricultural science units at all levels have also played a model role and have made major contributions.

The widespread launching of a mass program of scientific experimentation has everywhere given impetus to a rise in the level of scientific farming, and yields per unit of area have risen steadily. Throughout the province, many high-figure bumper-yield plots have appeared, such as yields of 1,300 jin per mu of intermediate paddy, and nearly 1,000 jin per mu of single crops of early paddy, late paddy, wheat and gaoliang, plus yields of nearly 10,000 jin per mu of sweet potatoes and of 300 jin per mu of ginned cotton. Such high yields from small areas have already become commonplace. Deserving of special attention are grain yields averaging 2,121 jin per mu in 1975 that developed out of high yields over large areas year after year in Hongguang Production Brigade in Xiaogan Commune, Deyang County. This yield set an all-time high for wide-area grain yields per mu for the year in the province.

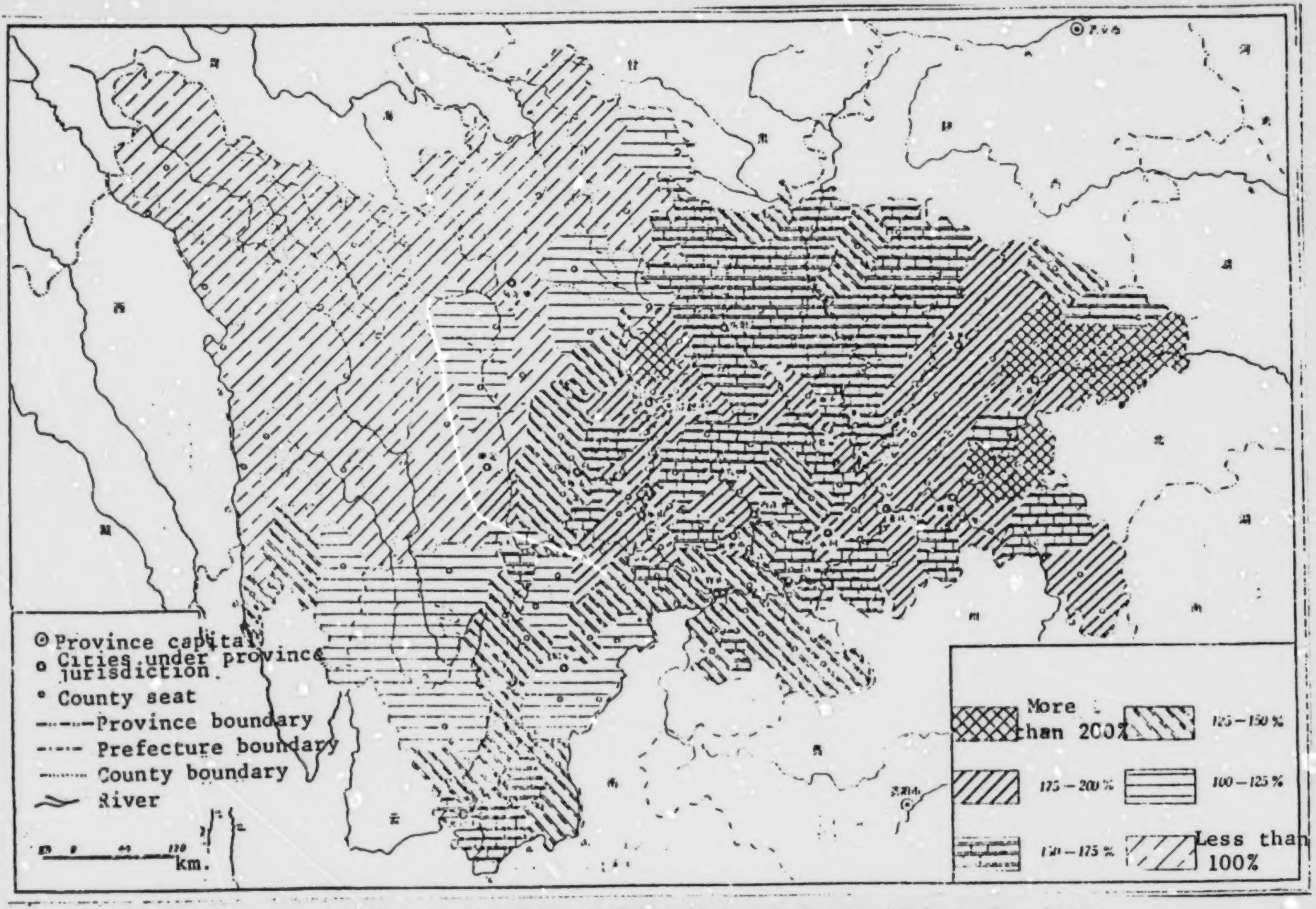

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
More than 200%
125–150%
175–200%
100–125%
150–175%
Less than 100%

Figure 15. Map Showing Farmland Multiple-Cropping Index in Sichuan Province

5. Increasingly Solid Industrial Basis To Support Agriculture

Prior to liberation, the whole province was virtually completely lacking in farm machinery manufacturing industries and chemical fertilizer industries. Except for a few shops that made iron, woodworking shops, and small indigenous coal mines, the far-flung rural villages had no true "five small" industries, much less did they use farm machines, chemical fertilizers, and electricity. Following liberation, under leadership of the party, various industries to support agriculture and "five small" industries began to develop and grow rapidly. At the provincial, prefecture, and county levels, plants manufacturing farm machinery on various scales began to be built, and prefectures and communes have gradually built farm machinery repair and spare parts stations to form a fledgling farm machinery repair network.

Today the whole province is able to produce large numbers of tractors, diesel engines, locomotives, hydraulic turbines, and machines for drainage and irrigation, for farming, for hauling, for plant protection, for harvesting, for threshing, for processing, and for the feeding of livestock. Output of various kinds of tractors alone is 32-fold greater than in 1970. There are approximately 60,000 tractors in the province (including approximately 45,000 hand tractors) 46-fold the 1965 number. (Footnote 6) (In 1978, there were more than 80,000 tractors in the province, including more than 63,000 walking tractors)

Up until 1965, Sichuan had only 2 large nitrogenous fertilizer plants, 1 small nitrogenous fertilizer plant, and 10-odd phosphate fertilizer plants.

During the past 10-odd years more than 130 small chemical fertilizer plants have been built in the province (including 81 small nitrogenous fertilizer plants and 52 small phosphate fertilizer plants). Two large nitrogenous fertilizer plants have also been renovated and enlarged for a 5.4-fold expansion in the production capacity of the entire chemical fertilizer industry. Gross output of chemical fertilizer has increased 6.5-fold (including a 5.4-fold increase in the output of small commune- and brigade-operated chemical fertilizer plants). The varieties of chemical fertilizer have increased from 5 to 14 and the total amount of fertilizer used has increased threefold. Fertilizer use in the province averages 54 jin per mu of cultivated land (and reaches more than 100 jin per mu on the plain at the western end of the basin), thereby effectively promoting a rise in crop yields per unit of area.

Simultaneous with the burgeoning of small machinery and small chemical fertilizer plants has been the appearance in steady stream of small steel and iron plants, small coal mines, and small cement plants that use locally available resources and that closely serve the needs of agricultural production. All "five small" industries present a picture of prosperity. Comparison of 1977 with 1965 shows a 2.7-fold increase in the output of small iron and steel plants, which reached 353,000 tons. Output of small coal mines increased 316-fold to reach 24.43 million tons. Output of small cement plants reached 1,849,000 tons in a 16.3-fold rise. Not only has development of the "five small" industries provided rural villages with large amounts of products to support agriculture that are needed locally, promoted agricultural production, and accelerated the modernization of agriculture, but it has also greatly bolstered the real economic strength of counties, communes, and production brigades to become an important material assurance that gives impetus to further development of people's communes.

Sichuan's electric power industry has also developed very rapidly. Comparison of 1977 with 1966 shows a 2.9-fold increase in electric power generation capacity and a more than threefold increase in the generation of electric power. There was a twofold increase in the length of high-voltage and super-high-voltage power-transmission lines erected. The entire province has virtually become a powerful electric power grid. At the same time, small hydroelectric power stations in rural villages have burst into bloom like hundreds of flowers dotting the landscape in farming areas, pastoral areas, the plains, and mountain regions. As of the end of 1977, 7,519 small hydroelectric power stations with 462,000 kw of electric power generating capacity had been built throughout the province, a more than 3.9-fold increase over 1965. High- and low-voltage power-transmission lines stretched for 158,000 km. Development of the electric power industry has powerfully spurred agricultural production. Rural power use reached 970 million kwh. Today 195 cities and counties throughout the province as well as 88 percent of communes and 36 percent of production brigades are served by electricity and in some counties every production brigade has electric power service.

In summary, profound changes have taken place in the far-flung rural villages of Sichuan Province since liberation, and achievements have been extremely remarkable. Since the smashing of the "gang of four," in particular, under leadership of the CPC Central Committee the people throughout the province have become fired with enthusiasm and their zeal has increased manifold. They are determined to exert maximum efforts to score even greater victories.

Chapter 4. Patterns of Production of All Sectors of Agriculture in Sichuan Province (Part 1)

First Section: Grain Crops

A. Numerous Varieties, Large Output, and a Prominent Position in the Country as a Whole

Sichuan is one of the most important grain-producing regions in China. It accounts for 8 percent of the nation's grain-growing area and produces approximately 10 percent of the nation's grain, first among all provinces and regions.

Sichuan grows a large variety of grain crops. Not only does it grow paddy rice, wheat, sweet potatoes, and corn, but also broad beans, peas, soybeans, potatoes, barley, highland barley, buckwheat, gaoliang, millet, oats, mung beans, and horse beans. Virtually every grain crop grown throughout the country is grown here. Furthermore, among the paddy rices grown are early paddy, intermediate paddy, late paddy, long-grain rice, short-grain rice, and glutinous rice. Sweet potatoes and corn include both spring and summer varieties. Wheat, broad beans, and highland barley include winter and spring varieties. The diversity and complexity of crops is unequalled in any other province or region.

Paddy rice, wheat, sweet potatoes, and corn are the four major grain crops of Sichuan Province, the area planted to them amounting to more than 80 percent of the total area sown and their output amounting to more than 90 percent of total grain output. This includes a paddy rice output of more than 28 billion jin or more than half of total grain output. Output of wheat, sweet potatoes, and corn is more than 6 million jin. (Footnote 1) (In 1978, Sichuan Province produced between 8.5 and 9 billion jin each of wheat, sweet potatoes, and corn and gross output of paddy was 28.6 billion jin. The extent of increase in output of the first three crops was very great; thus, the proportion of paddy rice to total grain declined to 46.7 percent.)

Up until the 1960's, Sichuan Province held first and second place in the country in area sown and gross output of paddy rice, sweet potatoes, and corn. However, its position declined gradually with the more rapid development of production in other provinces and regions. Today the province has slipped to second and third position, respectively, in area sown and gross output of paddy rice and sweet potatoes, and corn holds a commanding position only among provinces and regions in south China. Furthermore, Sichuan's wheat production has risen steadily to make the province one of the four major wheat-producing areas in the country.

B. Development Not Rapid and Production Insufficiently Consistent

Since liberation, despite the substantial achievements scored in Sichuan Province's grain production, the disparity with the speed of development in the country as a whole has been marked. During the past 28 years the rate of increase in gross output of grain in Sichuan has been about one-half the rate for the country as a whole. Over the years, grain output has risen and fallen, and fluctuations have been great with insufficient consistency in the development of production. During the period 1949-1958, for example, the province's grain output rose gradually, increasing at an average 5 percent per year. During the period 1959-1961, output nosedived. Gross output in 1961 was 44.2 percent less than in 1958. Between 1962 and 1966, output climbed again and then fell. After entering the 1970's, grain output gradually revived to the 1958 level; however, it then hovered at the same point for many years without advancing. It was only after the smashing of the "gang of four" in 1977 that grain output rose in one fell swoop to 56 billion jin for an all-time high.

Table 15. Crop Structure in Sichuan Province (1977)

Item		Grain crops total	Paddy	Wheat	Corn	Sweet potatoes	Other
Area sown	10,000 mu	14,870	4,975	2,808	2,151	1,890	3,046
	percent	100.0	33.4	18.8	14.4	12.7	19.7
Gross output	100 million jin	560	282.2	66.5	70.8	83.4	57.1
	percent	100.0	50.3	11.9	12.6	14.9	10.3

Development of paddy production has been markedly sluggish. Not only has the area sown not revived to the all-time high, but gross output in 1977 had increased by only slightly more than double the 1949 figure, much lower than the rate of increase (more than 150 percent) for paddy rice in the country as a whole, and much less than the rate of increase for grain in the province as a whole. Consequently, paddy rice output fell from 62 percent of grain output in 1949 to 50 percent in 1977 to become the weak link in grain production.

Though speed of increase for both sweet potatoes and corn was higher than for grain as a whole; nevertheless, output of sweet potatoes failed to reach the all-time post-liberation high (9.47 billion jin in 1958), and the area sown to corn did not reach the all-time high either (24.05 million mu in 1956).

Wheat production developed fastest by comparison, both area sown and gross output exceeding the all-time highs. As a result, the position of wheat as a percentage of the province's total grain output rose steadily to become a vital new force in increased grain output.

The area sown to other grains generally decreased (for example, the area sown to garden peas and broad beans in 1977 fell 35 and 42 percent, respectively, from 1949, and the area sown to soybeans and gaoliang shrank by 9 and 43 percent, respectively). Despite fairly high rises in yields per unit of area, gross outputs largely failed to reach all time highs.

Table 16. Changes in Grain Crop Structure in Sichuan

Year	Total grain		Paddy		Wheat		Sweet potatoes		Corn		Other	
	Area	Output	Area	Output	Area	Output	Area	Output	Area	Output	Area	Output
1952	100	100	36.4	62.3	10.9	5.3	12.0	12.0	15.0	8.8	25.7	11.6
1965	100	100	36.3	59.4	13.1	7.1	12.9	13.3	13.3	10.5	24.4	9.7
1977	100	100	33.4	50.3	18.8	11.9	12.7	14.9	14.4	12.6	19.7	10.3

C. Full Planting But Uneven Crop Patterns

Except for Serxu County in the northwestern corner of Garze Zang Autonomous Prefecture, all cities and counties in Sichuan produce grain; however, the crop pattern is very uneven. In the western part of the province (Garze Zang, Aba Zang, and Liangshan Yi Autonomous Prefectures and in Xichang Prefecture), which has more than half the land area in the whole province, both the area sown to grain crops and gross output is less than 10 percent of the total for the province. In the Sichuan basin, on the other hand (mountain areas on the fringes of the basin excepted), which has less than 30 percent of the province's land area, grain output is approximately 80 percent of the total for the whole province.

The crop pattern for the four major grain crops covers both a broad area and is concentrated at the same time. Except for the counties in the northwestern parts of Garze Zang and Aba Zang Autonomous Prefectures, 160 to 170 cities and counties in the province grow paddy and sweet potatoes; however, more than 85 percent of the growing area and the gross output is concentrated within the Sichuan basin. Wheat and corn are grown over a wider area in more than 95 percent of the province's cities and counties. A preponderant amount of wheat is also produced within the Sichuan basin, and corn is found mostly in all the counties in the mountains surrounding the basin and in Liangshan Yi Autonomous Prefecture and Xichang Prefecture.

Potatoes, peas, and broad beans are also found over a fairly wide area. Peas are grown mainly in the hill areas in the basin, particularly on dry, infertile hilltops and mesas where they usually are a winter crop. Fair amounts of broad beans are grown on fields that serve both as wetlands and drylands on the plain in the western part of the basin and on drylands on hills in the basin. They are a major local winter grain crop or green manure crop. The area in which highland barley, buckwheat, and gaoliang are found is fairly narrow, however. Highland barley is a dryland crop that tolerates cold and is the principal grain of the people of Zang nationality; thus, it is grown mostly in Garze Zang and Aba Zang autonomous prefectures. Buckwheat has a short growing season, suiting it to planting in high and cold mountain regions such as Liangshan Yi Autonomous Prefecture and Xichang Prefecture, areas inhabited by the Yi nationality, where most of it is grown. The growing of gaoliang is pretty well concentrated in the area running from Luxian to Jiangjin, where it is the principal raw material used in the distillation of liquor.

D. Yields Not High; Disparities Between One Place and Another

Yields in Sichuan Province average 658 jin per mu of cultivated land, which is lower than in most provinces and regions in south China. Fewer than 30 percent of all cities and counties in the province have grain yields greater than those called for in "The Program for National Agricultural Development," and they are lower than the national average as well. Among principal crops, yields from intermediate rice stalled at 500 to 550 jin per mu for the past 20 years, finally breaking 600 jin only in 1977. Yields of late paddy have yet to increase beyond 300 jin per mu, placing Sichuan in last place among the provinces and regions of south China. Corn yields are also smaller than for the country as a whole. Wheat yields are only slightly higher than the national average.

There is an extreme disparity in the level of grain production from one place to another in the province. Today, the highest grain yield in a county (Wenjiang) is 1,400 per mu of cultivated land; in the lowest, the yield is less than 200 jin. In Wenjiang County, yields of intermediate paddy are greater than 800 jin per mu, while the yield in the lowest county is only 200-odd jin per mu. Cities and counties with the highest yields of wheat produce more than 450 jin per mu, while some places produce less than 100 jin per mu. There is also a manifold disparity between one county and another in corn yields. The difference between high-yield fields and low-yield fields is severalfold. This also demonstrates a huge potential for increased grain yields in Sichuan Province.

2. Status of Production and Course of Development of Major Grain Crops

A. Paddy Rice

Sichuan grows predominantly intermediate paddy, the growing area and gross output of which account, respectively, for 83 and more than 88 percent of all paddy grown. Intermediate paddy rice has historically been a mainstay in rice production. The plain in the western part of the basin, both banks of the Chang Jiang in the southern part of the basin, and the gradually sloping hills in the lower reaches of the Min, Tuo, and Jialing Rivers are the areas in which the growing of intermediate rice is most concentrated. In addition, a fairly large amount of intermediate rice is also grown on the hills in the northern and eastern parts of the basin and in the valley of the Anning He in Xichang Prefecture. Intermediate rice may be grown at between 1,400 and 1,500 meters in the mountains surrounding the basin, and

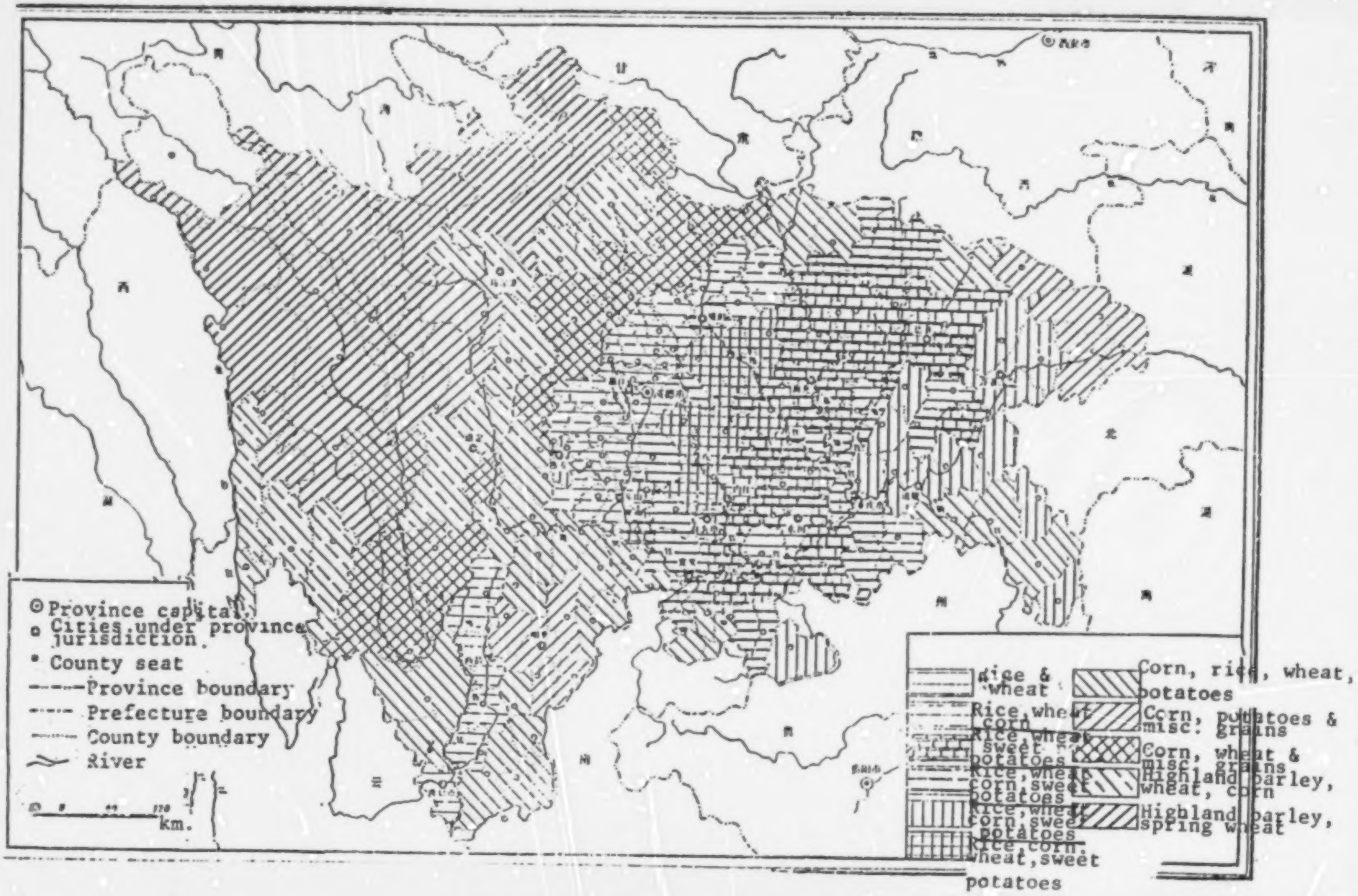

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
Rice & wheat
Rice, wheat corn
Rice, wheat, sweet potatoes
Rice, wheat, corn, sweet potatoes
Rice, wheat, corn, sweet potatoes
Rice, corn, wheat, sweet potatoes
Corn, rice, wheat, potatoes
Corn, potatoes & misc. grains
Corn, wheat & misc. grains
Highland barley, wheat, corn
Highland barley, spring wheat

Figure 16. Mix of Grain Crops in Sichuan

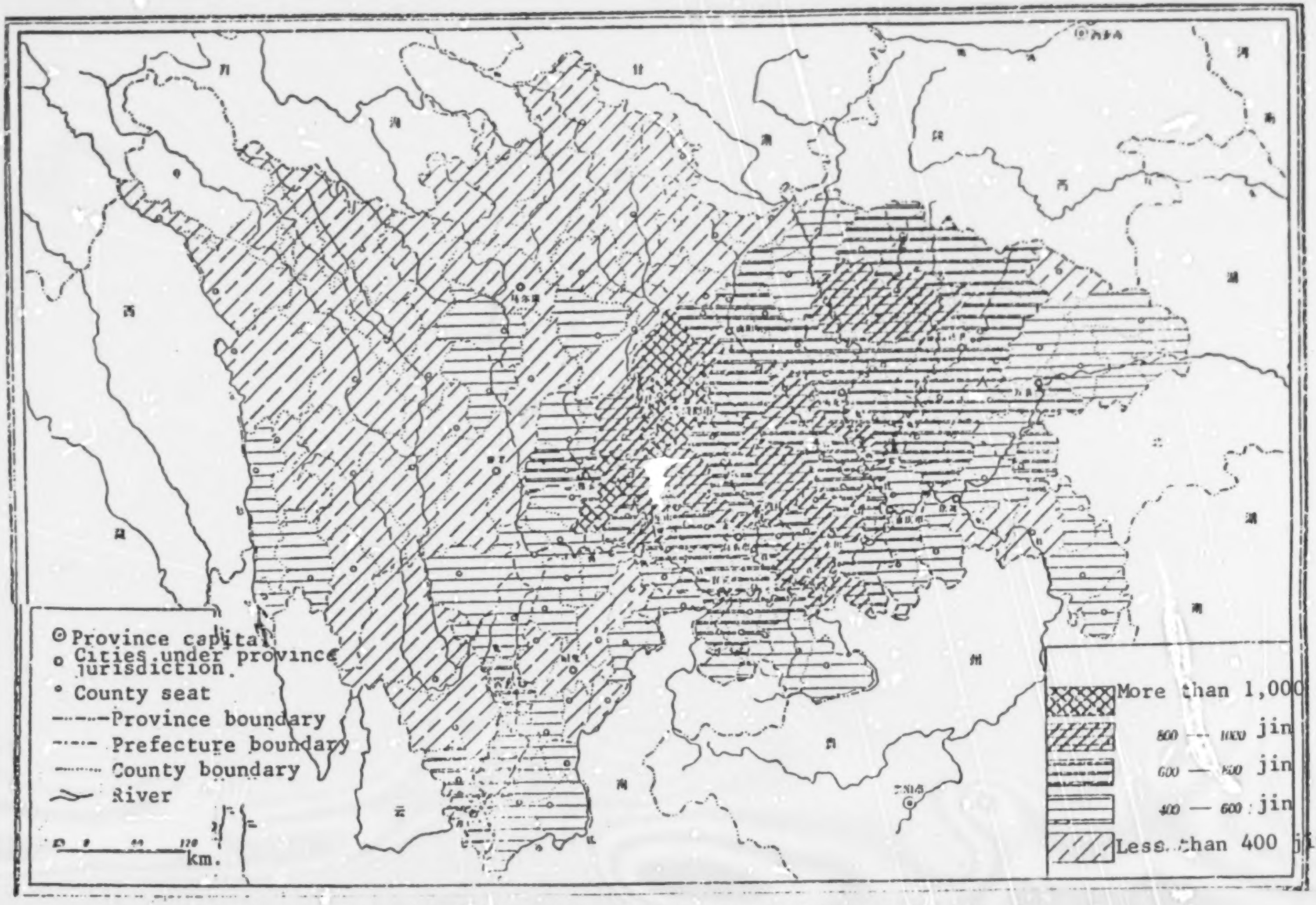

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
0
60
120
km.
More than 1,000 jin
800 — 1000 jin
600 — 800 jin
400 — 600 jin
Less than 400 jin

Figure 17. Grain Yields Per Mu of Farmland in Sichuan Province

at between 2,400 and 2,500 meters in Xichang Prefecture, making this the highest point in the whole province at which paddy rice is found. Though two crops of rice have been grown for 40 years, as of the eve of liberation the practice had virtually died out. Only in the area around Luxian did individual peasant households plant two crops. Following the liberation, despite ups and downs, the growing of two crops of paddy continued to expand until today when most of the double-crop area is concentrated in the hills in the southeastern part of the basin and on the plain in the western part of the basin in more than 20 cities and counties. It is grown only here and there, for the most part, in other places, while in some places planting is experimental. Consequently, the double-crop paddyfield area in Sichuan remains very low (8 percent), output of double-cropped paddy amounting to only 12 percent of total paddy output. This provides a striking contrast to the situation in provinces, regions (and cities) in south China that produce mostly two crops of paddy. (Footnote 2) (According to 1973 statistics, between 50 and more than 60 percent of all rice grown in south China (exclusive of the three southwestern provinces), in Hubei, Anhui, and Jiangsu was double-crop paddy. In other provinces, cities, and regions in south China, it accounted for between 80 and more than 90 percent.)

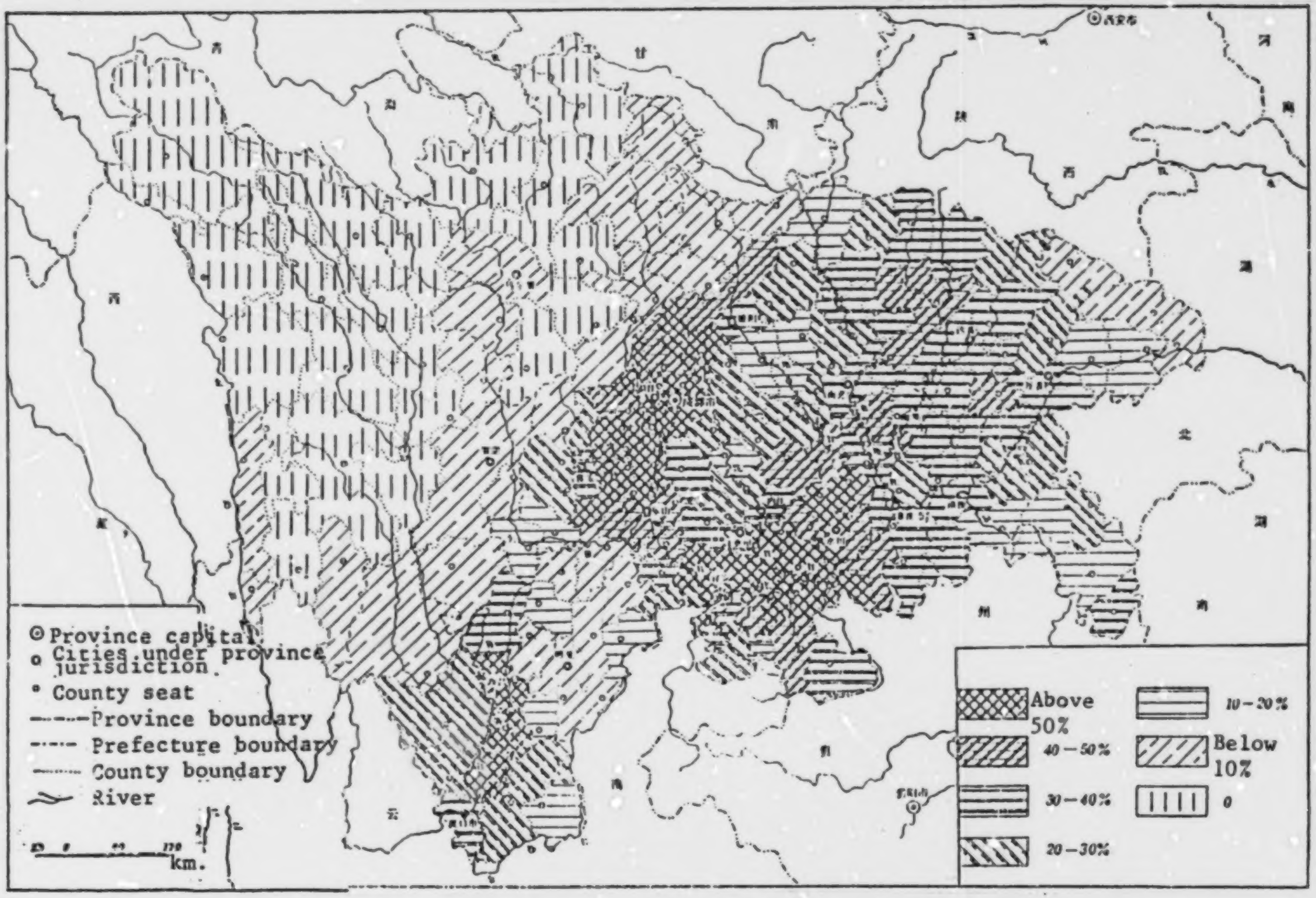
As has been said above, paddy yields are not high in Sichuan, and the speed of increase has been very slow. There are many reasons for this state of affairs. One is the poor water and soil situation in paddyfields. The percentage of winter wetlands and fields that depend on rainfall is large, and low-yield fields are numerous too. In fields that can be irrigated, there are no separate irrigation and drainage ditches in most cases, and fields are not level. Conditions do not exist for consistently high yields. Second, as the multiple-cropping index has risen, for the past more than 10 years the green manure area has gradually diminished, and other fertilizers have not increased greatly. In the growing of late paddy and of single-crop intermediate rice in winter wetlands, in particular, frequently there is no fertilizer to be applied. The growing of "seedlings on unfertilized soil" is pretty much the case everywhere. Third, numerous fundamental techniques for intensive farming have yet to become popular; seed-selection work has not kept pace;and mongrelization and regression is serious. In addition, short-stem fine varieties have not been promoted for growing in intermediate and late paddyfields, and both quality of farming and the level of care are also nonintensive. Fourth, there is a lack of general understanding about how to produce double crops of paddy, the proportion of late maturing early rice varieties planted being too large. This results in the late transplanting of large areas of late paddy and low yields, or else the overly early sowing of early paddy in order to clear the way for transplanting of late paddy causes seedling rot. Some places even require "arbitrary uniformity" in crop planning and practice blindness in the spread of techniques. Frequently, yields increase during the first year and rise greatly in the following year, creating needless losses. In order to bring about a rapid rise in paddy yields per unit of area, not only is improvement necessary in basic conditions such as water, soil, and fertilizer, but major efforts must be placed on scientific farming.

Intermediate rice production is concentrated from April through September when heat and water conditions are at their best. Yields are always fairly consistent, the growing area is large, potential is great, and the masses have experience in growing intermediate rice as well. A powerful attack should be launched on intermediate paddy to score great increases in yields. If consistent but not high yields are to be translated into consistently high yields, further promotion will have to be given to moist seedling fields. Also required will be sparse sowing of rice seeds, propagation of sturdy seedlings, frequent plowing and harrowing, thinning of dense plants and intensive care. A very great potential remains to be tapped in the selection of fine-variety seeds. A change must be made as quickly as possible to the growing of short-stem fine varieties to replace the tall-stem intermediate rice that is grown on 15 million mu in the province. Given similar water and fertilizer conditions, it is possible to increase yields of intermediate rice by between 50 and 100 jin per mu simply by a proper increase in density. Were strongly resistant, intermediate rice varieties (such as Keyu No 6) with a fairly long growing season selected for the 4 million mu of ankle-deep cold-waterlogged fields that produce low yields, and other measures applied, high yields could be produced. For the winter wetlands in the summer drought area of eastern Sichuan where water conservancy is not available, early maturing high-yield intermediate rice varieties (early ripening intermediate rice) should be selected for planting so that it would head and flower before the end of June, thereby avoiding the threat of summer drought. After harvesting, another late autumn crop could be planted. Particular attention should be given the promotion of hybrid rice and the propagation of "sturdy seedlings with many tillers." Hybrid rice shows marked heterosis in that its root system is strong; it grows vigorously; tassels are large and kernels numerous; it is widely adaptable; grain quality is good; and fine strains can increase yields by 20 to 30 percent or more as compared with ordinary fine varieties of rice. The propagation of "sturdy seedlings with many tillers" applies to both ordinary rice varieties and hybrid rice. Not only does this result in a great economy of seeds and seedling fields (it can save between 70 and 80 percent or more in seed per mu of fields), but this also increases yields by 40 percent or more over conventionally propagated seedlings. Thus, it is a revolutionary measure in paddy rice production. Pilot projects on these two propagation methods have scored very great results throughout the province, and as they find widespread application in production, great expansion will certainly occur in the production of paddy in Sichuan Province.

The double-crop rice production season extends from March and April until the end of October or even into November. During this period, most parts of the Sichuan basin have a growing period of 180 to 200 days from the time when early rice sprouts until late rice completely heads. Cumulative temperatures above 0°C range from 4,600°C to 5,000°C, enough to meet production needs. However, spring temperatures are not always stable, and when fall temperatures plummet, unless a body of scientific methods for growing rice exists, the seedlings of early rice are prone to rot and late rice will abort at low temperatures resulting in a serious decline in yields or even no harvest at all. Similarly, unless sufficient water and fertilizer are provided and soil fertility is insufficient to insure normal growth of double crops of rice, even if there is a crop to be harvested, possibly "two crops will not amount to as much as one." Consequently, for double-cropped rice to produce greater results, serious attention must be devoted to improving the availability of water and fertilizer and good performance in scientific farming. Of particular importance is a good job in rational selection of early and late paddy varieties and in matching them with each other, plus strict understanding of the time when they should be sown and transplanted. Generally speaking, in the western part of the basin, the mix of early and late rice should be mostly the pairing of early (ripening) varieties with intermediate (ripening) varieties or matching intermediate to early varieties. In the middle and southeastern parts of the basin, intermediate-ripening should be matched to late-ripening varieties, and late-ripening paddy may be matched with some intermediate-ripening varieties. Cold waves should be guarded against when planting early rice, i.e., planting should be done at just the right time as the cold is leaving and warmth is arriving. (In the northwestern part of the basin, this is just before the vernal equinox, and in the southeastern part of the basin it is in the period between 5 March and the vernal equinox.) If hothouses and plastic mulch are used to propagate weedlings, so much the better. The time when late rice is transplanted has a very great effect on yields. Every effort should be made to transplant early, generally between 20 and 25 July, with transplanting being substantially completed by the end of July at the latest. If some late paddyfields just cannot be planted until early August, planned use should be made of the "two-stage seedling-propagation" method so that late becomes "early" to avoid losses resulting from the late transplanting of old seedlings. Simply by following the aforestated measures, prospects are very good in most parts of the Sichuan basin for the development of double-cropped rice, and the potential is also very great. Individual places may create conditions and suit general methods to local circumstances for gradual development of the growing of two crops of rice as their particular situations permit.

B. Wheat

Sichuan Province grows both winter wheat and spring wheat. Most of the winter wheat is found within the Sichuan basin, the largest percentage being planted in the counties of the northern and western parts of the basin, where they are grown on 25 to 30 percent of the area sown to grain crops. The next largest percentage is found in the counties in the middle, and southern parts of the basin. Relatively little is grown in the eastern part of the basin, in the mountains surrounding the basin, or in Xichang Prefecture and Liangshan Yi Autonomous Prefecture. The area in which spring wheat is grown accounts for less than 1 percent of the total wheat-growing area. It is grown mostly in Garze Zang and Aba Zang Autonomous Prefectures at between 2,500 and 3,500 meters above sea level. In recent years the growing of spring wheat in some areas has been replaced by the autumn planting of high-yield "Xizang feimai."



Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
Above 50%
40–50%
30–40%
20–30%
10–20%
Below 10%
0

Figure 18. Rice as a Percentage of Grain Growing-Area in Sichuan

Sichuan has superb conditions for development of wheat production. Its winter temperatures are high; the frost period is short; temperature climbs rapidly in spring; and the entire winter and spring seasons are fairly dry. Not only can wheat grow fast and ripen early, but there is no, or little, "wetness damage." It is outstanding by comparison with other provinces and regions in south China. As a result, wheat has always produced fairly consistent yields in Sichuan. The reason that Sichuan's wheat-growing area did not amount to very much in the past was largely the result of soil and water limitations. However, with the improvement of fields and the improvement of soil (particularly improvement of winter wetlands), the wheat-growing area will gradually increase, particularly in the south-central part of the basin where the percentage of winter wetlands remains relatively high and where the amount of land that is allowed to lie fallow during winter is fairly large in mountainlands around the basin, in Xichang Prefecture and in Liangshan Yi Prefecture. It is such places that have spare land for inincreased growing of wheat.

In 1977, Sichuan Province harvested an unprecedented bumper wheat crop. In seven or eight counties in the southern parts of Garze Zang and Aba Zang Autonomous Prefectures, wheat yields averaged more than 400 jin per mu, and in cities and counties on the northern part of the Chengdu Plain yields also averaged between 350 and 400 jin or more per mu, making these areas one of the country's high-yield wheat areas. Nevertheless, another 60 wheat-growing counties averaged yields of less than 200 jin per mu, providing a marked contrast. Consequently, turning low yields into high yields and high yields into still higher yields is the main avenue for development of future wheat production.

At the present time, wheat fields have too few seedlings and the seedlings are not sturdy. This means two few spikes and small spikes containing few grains. This is a major reason for low wheat yields. In many places, each mu contains only 10,000-plus seedlings and sometimes fewer than 10,000; thus, more seeds must be planted. Experience with large-area production and the results of scientific experiments show that between 150,000 and 200,000 seedlings per mu should be planted in the fields used for the growing of both wetland and dryland crops in the eastern part of the basin where temperature and moisture are high. In other areas, the number may be as high as around 200,000 to 250,000.

Problems with wheat varieties in Sichuan are fairly prominent. For example, regression is a serious problem with fine hybrids; planning of the use of varieties is not done properly; fine methods are not used in conjunction with fine varieties; and certain varieties (such as "Abo") that have been promoted over wide areas have been generally infected with rust, which seriously impairs yields. Solution to these problems requires arousal of the masses to select critically, evaluate, and breed rust-resistant high-yield varieties. It also requires suiting of general methods to local circumstances to replace varieties. (For high yield flatland areas, varieties should be selected that tolerate fertilizer, resist lodging and have a large potential for increased yields. For terraced hillsides, varieties should be selected for their tolerance of drought and soil infertility.)

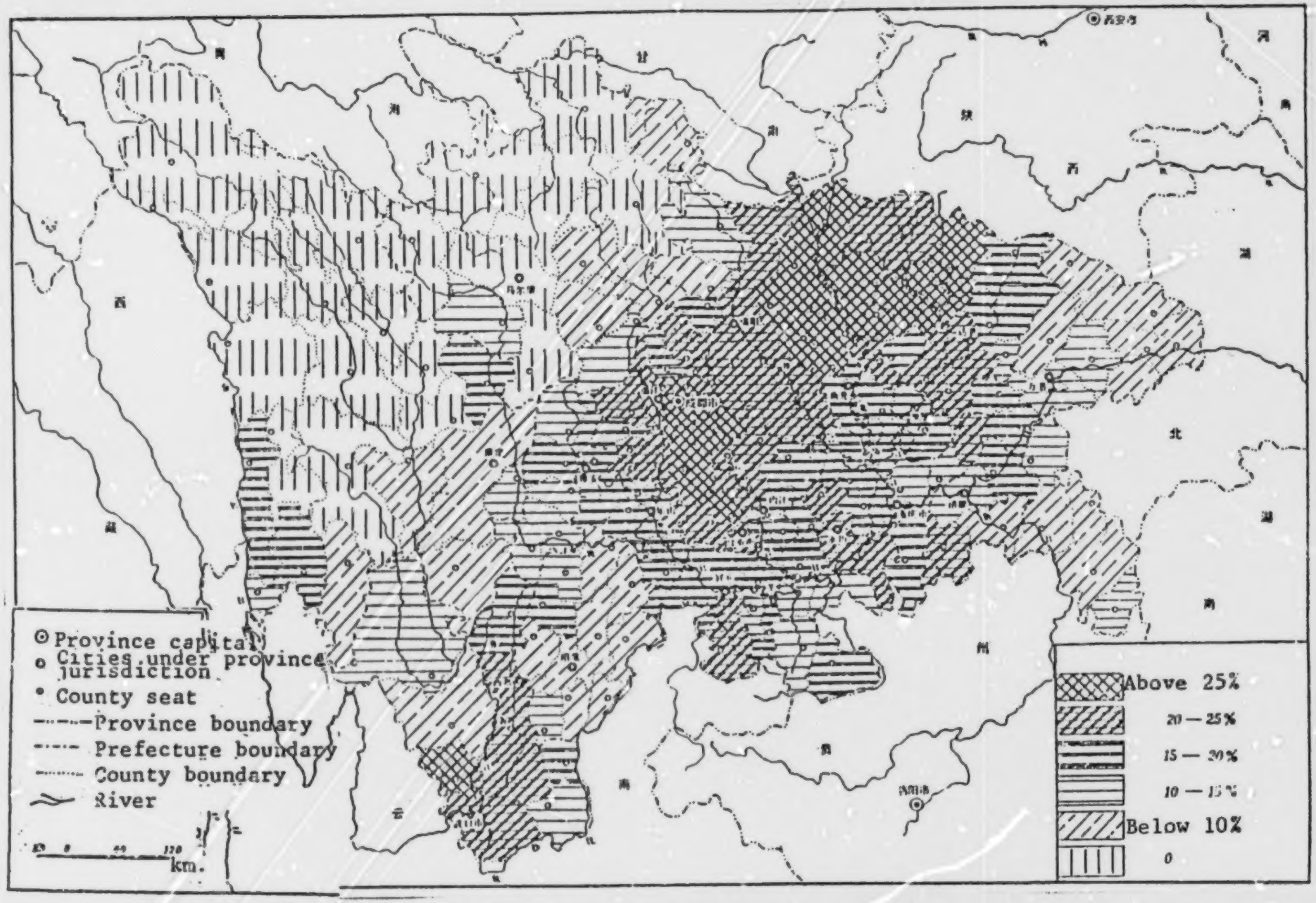

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
Above 25%
20 — 25%
15 — 20%
10 — 15%
Below 10%
0

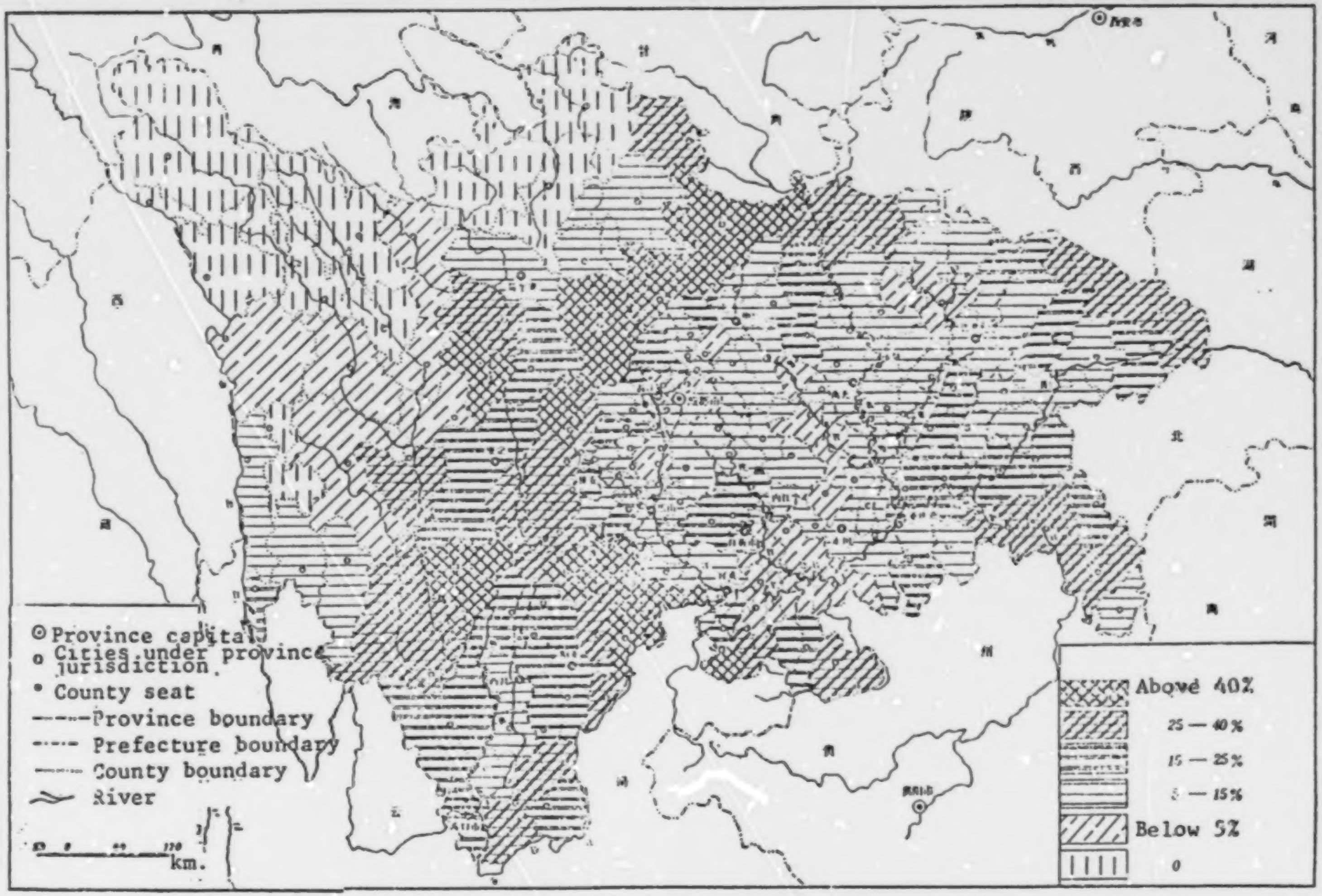
Figure 19. Wheat as a Percentage of Grain Crop Area in Sichuan Province

With the steady increase in the three-crop system, the area that is sown to wheat late in the season has also increased year by year (and already accounts for approximately 10 percent of the area sown to wheat). In the former two-crop system, wheat was generally sown before the arrival of frost. In the three-crop system, the period for sowing wheat will have to be postponed to the middle of November or even later; hence, yields will be generally somewhat lower. In order to solve this contradiction, the wheat that is selected for growing in the three-crop system should be a high-yield variety (such as "Fan 6," "A 2 Ai") that can be sown late and ripens early in spring. This is the key to winning high yields from wheat that has been sown late. This will have to be accompanied by measures such as the soaking of seeds to promote sprouting, intensive care, repeated application of base fertilizer, and early application of side dressings of fertilizer as a means of getting early results from late planting, early growth and rapid development and equally high yields. New methods of propagating seedlings for transplanting may also be promoted for wheat fields that are to be sown very late. Inasmuch as there has not been any postponement in the sowing season for wheat that is to be transplanted and since some damage to old roots in the transplantation process can be remedied through the rapid development of new roots and the vitality of the wheat increased, yields from wheat that has been transplanted may be markedly greater than from late-sown wheat through the propagation of sturdy seedlings, prompt planting, and planting at proper densities. Further solution will have to be found to problems in the mechanization of transplanting in order to increase work efficiency and set the stage for the transplanting of wheat over large areas.

C. Corn

Though in the category of "coarse grains," corn has more nutritional value than either rice or wheat and is of both better quality and stores better than sweet potatoes. Corn is diverse in its ecotypes; thus, it is widely adaptable. There are varieties that may be sown in spring or in summer, and it may be planted either as a single crop or intercropped. It will grow equally well on dryland hillsides or in fields that are used for both wetland and dryland crops. It is found on flatlands, on hills and in mountain areas. In mountain regions, in particular, it takes hold better than paddy, wheat, or sweet potatoes. Consequently, there is a lot of space for the growing of corn in Sichuan Province.

In Sichuan Province, corn is found mostly in the mountains surrounding the basin, and on the plain and in the mountains of western Sichuan where the area sown to corn is approximately 30 percent of the total area sown to grain crops. In places where the plain and mountains neighbor each other (as in Pingwu, Beichuan, Maowen, Wenchuan, Baoxing, Ebian, and Mabian Counties), between 50 and 60 percent or more of the area sown to grain crops is sown to corn. In addition, within the Sichuan basin, corn is widely grown, a fairly large amount of it is grown on the hills in the basin and in the parallel mountain valleys in the eastern part of the basin.



Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
Above 40%
25 — 40%
15 — 25%
5 — 15%
Below 5%
0

Figure 20. Corn as a Percentage of Grain Crop Area in Sichuan Province

More than 90 percent of all corn is grown on dryland hillsides from which yields are low because of erosion and the infertility of the soil. In mountain regions, in particular, corn yields average only 100 to 200 jin per mu in most counties. Thus, major efforts to improve the soil are needed. Most important at the moment are various measures including the deep digging of winter fallow land and reserve rows, bringing in of large amounts of soil, removal of soil (sand) from the surface, and increased fertilization in order to bring about increased yields.

Formerly corn was grown alone in Sichuan, mostly intermediate and late ripening varieties being planted. This both limited increase in multiple cropping of drylands and made the corn prone to damage from summer heat (particularly during the blossoming and in-the-milk periods). In recent years, some cornfields have been changed from the growing of corn alone to the intercropping of corn with other crops. Early corn has replaced intermediate corn and the growing of two crops has been changed to the intercropping of three. Not only is another crop grown (sweet potatoes or potatoes), but the corn avoids the hottest days of summer. This has made an important contribution to increased grain yields. Nevertheless, in more than two-thirds of the province, corn is still grown as an individual crop; thus the potential for improvement is very great. In the future, while continuing to promote the intercropping of corn with other crops, further stress should be placed on a change from the direct planting of corn to the growing of seedlings for transplanting. By so doing, corn can be made to ripen earlier by 10 days or more, and yields can be increased by approximately 20 percent.

The greatest potential for increased corn yields lies in the spread of hybrid varieties. First-generation hybrid corn has powerful heteroses. It grows vigorously, has sturdy stalks and large ears and is resistant to both diseases and to lodging. Under identical conditions, it produces 30 to 50 percent higher yields than conventional local corn varieties, and in some cases yields are double. Back in 1975, more than half the corn grown in China was hybrid, but in 1977 only one-third of the corn grown in Sichuan province was hybrid, the task of spreading the growing of hybrid lagging behind by several years. Because seed-production techniques were poor, hybrid parent stock not pure, and quality of hybrids that were produced not high, hybrids did not show strong heteroses. As a result, the role of hybrids in increasing corn yields have yet to show up to the full. Major efforts will have to be made in the future to improving seed-production work, to improving seed-production techniques, to increasing the quantities of seeds produced, and rigorous testing and demonstration used as a basis for spreading and popularizing hybrid corn as quickly as possible, good farming being used in conjunction with good techniques and superb seeds in close combination to bring about tremendous increases in corn yields during the next few years.

D. Sweet Potatoes

Sweet potatoes are a warmth-loving dryland crop, most of which are grown on the dryland hills in the Sichuan basin where they account for approximately

30 percent of local grain output. They are grown second most extensively in the southern part of the basin, with a substantial number being grown in the eastern part of the basin as well.

Sweet potatoes are grown in either spring or summer in Sichuan. Both spring and summer crops are grown either as separate crops or are intercropped. With the rise in the dryland multiple-cropping index in recent years, the area of intercropping has gradually increased while the separate growing areas has decreased.

Sweet potatoes are fairly tolerant of both drought and infertile soil, which is why they are grown on high terraced tablelands or on the tops of slopes where soil, water, and fertility conditions are worst. They are not fertilized, and in some places (such as eastern Sichuan), it is the habit to grow them on "hard slab ground" in a rather nonintensive way that seriously hurts yields. If higher yields of sweet potatoes are to be harvested, such backward farming habits will have to be completely changed, efforts made to thicken the soil layer and increased fertilization given. The focus of attention right now should be on bringing in soil to build up field plots, to develop the plots and put in upraised paths among them, to widen rows and areas between rows, to make high upraised paths and to plant, or alternatively make large-scale plantings of "piles" of sweet potatoes with gradual eradication of the practice of growing them on "hard slab ground" so that sweet potatoes will grow healthy and strong in a soil environment that is friable, fertile, and well aerated.

For many years, the mongrelization and degeneration of sweet potato varieties has been fairly serious as a result of which yields have fallen and quality has become poor. An effective way to surmount the degeneration lies in purification and rejuvenation. For example, the Sichuan Academy of Agricultural Sciences has selected seed stock for "Nanruitiao" for 3 consecutive years. Six of the finer strains selected have produced yields between 11.5 and 21.2 percent greater than the parent stock that was not selected for seed purposes.

In Sichuan Province, virtually every year 80 percent of the sweet potato crop is damaged by either summer or autumn drought. Therefore, planting as early as possible to enable the sweet potatoes to grow vines and produce tubers before the arrival of drought remains an important way in which to harvest high yields. However, because of backward techniques for growing seedlings in the past, early planting was not possible for production. Thanks to the promotion of advanced methods such as the overwintering of sweet potato vine tips for use in growing a new crop and "propagation in solar heat storage beds," this problem has been solved. Not only do the new techniques permit sprouting 30 to 50 days earlier, allowing the transplanting of sweet potatoes a month or more earlier, but between 70 and 80 percent fewer need be planted, which has very great significance for increased output.

Sweet potatoes rot easily. During the time they are in storage, between 30 and 50 percent of sweet potatoes rot as a result of blackspot or soft-rot disease. In worst cases, all of them rot. Unless this problem can be solved, increasing sweet potato yields will be rather meaningless. Currently, the use of "high-temperature large cellars" for storing sweet potatoes have been demonstrated to be extremely effective. Not only does this control the growth and proliferation of disease bacteria, but it also kills bacteria on the surface of the tubers, hastens the healing of wounds on the tubers, and increases their resistance to disease with the result that there is virtually no rot.

In recent years, the masses have summarized experiences with the aforementioned set of measures for increasing yields as "fighting calamities for high yields of sweet potatoes through a series of measures" (namely, "early planting, thick soil, heaps of sweet potatoes, fine seeds, fertilization, and high-temperature storage cellars"). Remarkable results have been achieved as the result of major efforts to promote these measures in production. As experience blossoms everywhere, Sichuan's sweet potato production will certainly increase substantially.

3. Commodity Grain Production and Distribution of Bases

Sichuan has been one of the country's most important commodity grain producing areas. During the First 5-Year Plan, the commodity grain rate averaged 22 percent for the championship among all of China's southern provinces and autonomous regions. Shipments of commodity grain outside the province averaged 3 billion jin per year, making Sichuan the country's largest shipper of rice and wheat among all provinces and autonomous regions in a very large contribution to the country. Nevertheless, because of the slow development of grain production and the very fast increase in agricultural population in Sichuan during the past 20 years, the amount of grain produced per capita of agricultural population in the province is presently 50-odd jin less than in 1957. The commodity rate for grain has dropped approximately 12 percent, so after supplying residents of cities and towns within the province, there is little commodity grain left over for shipment outside the province, and in some years, other provinces have to help provide grain to Sichuan. Counties providing 100 million jin or more of grain also declined from 27 in 1957 to 13. This situation has become less and less consistent with needs for developing the building of socialism.

Rapid expansion of commodity grain production and improvement in the commodity rate for grain requires the concentration of forces to operate a number of base counties that can be made into mainstays and principal forces for commodity grain production. The main task of commodity grain base counties should be the production of commodity grain, and they should be able to provide consistently large quantities of commodity grain to the country.

Generally speaking, commodity grain base counties should meet the following requirements at minimum: A fairly high per capita grain output, a fairly high

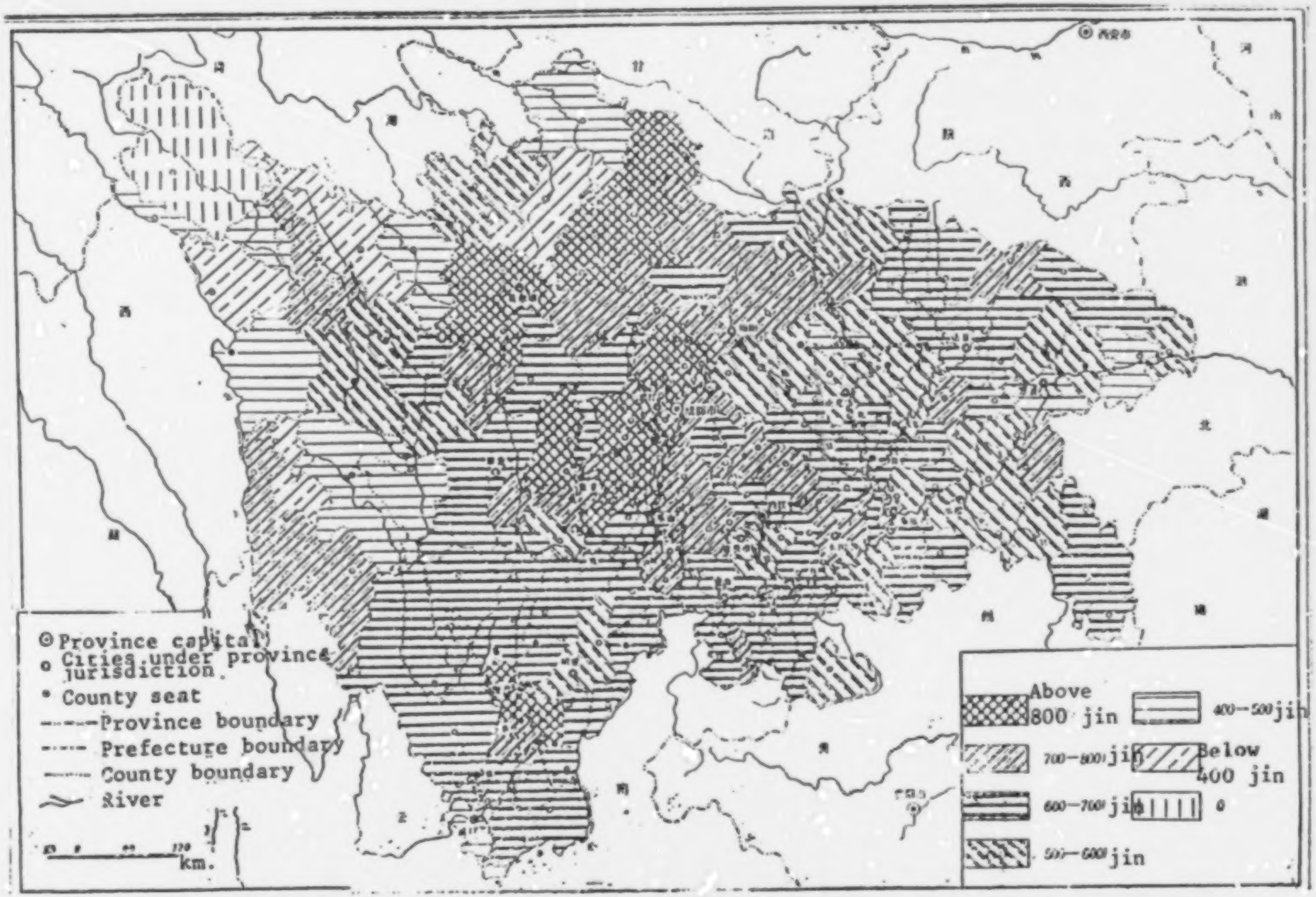

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
Above 800 jin
700—800 jin
600—700 jin
500—600 jin
400—500 jin
Below 400 jin
0

Figure 21. Grain Yields Per Capita of Agricultural Population in Sichuan

commodity grain rate (including the interarea commodity rate), or else a large area of wasteland that can be brought under cultivation, or a very great potential to increase output of commodity grain resulting from other reasons. The amount of grain output per capita reflects the grain surplus of rural villages within a county and shows the size of its potential for being able to provide commodity grain. The grain commodity rate is the ratio between the net amount of state grain purchases and gross output, while the interarea commodity rate is the ratio between the net amount of commodity grain sent outside a county and its gross output. The higher the ratios, the greater the real contribution and the more outstanding the role of the base.

It should be explained that the amount of commodity grain (the commodity amount) has not been the main basis considered here. This is because there is an extremely wide disparity between one county and another in the cultivated land area and in the amount of population. The population and the amount of cultivated land in some small counties is equivalent to that of just a single district of a large county, so naturally the amounts of the two cannot be discussed in the same terms. For example, Jianyang County is a cash-crop base county with more than 1.6 million mu of farmland and an agricultural population of 1.2 million. The commodity grain rate for the county as a whole is only 5.1 percent, and the amount of commodity grain per capita only 35 jin, making it the county in the Sichuan basin with the lowest commodity grain rate and the one that provides the smallest amount of commodity grain per capita. Its commodity grain production is scattered over a wide area, and its grain production is substantially for self-sufficiency. It is only because the county has a large amount of land that its annual amount of commodity grain, when taken together, amounts to more than 40 million jin. Conversely, Xinjin County is a small county that produces grain. It has only one-eighth the farmland of Jianyang County, but its commodity grain rate is 21 percent. Commodity grain production is 174 jin per capita, which is three- to fourfold that of Jianyang County. It is only because the county has such a small amount of farmland that its total commodity grain production is less than 40 million jin per year, less than for Jianyang. Were base counties to be selected solely on the basis of the amount of commodity grain they produce, that would lead inevitably to the erroneous conclusion that "large counties are superior to small counties." Thus, the absolute figures for commodity grain may only be used as a guide.

In view of the aforestated needs and present realities, we believe that for the time being the province may designate one provincial commodity grain base and two "reserve bases." The amount of grain production in each county making up the provincial commodity grain base would have to be 750 jin or more per capita; the commodity grain rate would have to be 15 percent, and the interarea commodity rate would have to be no less than approximately 10 percent. "Reserve bases" would be those not currently having requisite conditions, but that could meet basic standards for becoming commodity grain bases within several years.

A. Commodity Grain Bases on the Flatlands in the Western Part of the Basin

The flatlands in the western part of the basin cover 23 counties including Wenjiang, Pixian, Chongqing, Xindu, Guanxian, Guanghan, Shifang, Pengxian, Deyang, Mianzhu, Anxian, Shuangliu, Xinjin, Dayi, Qongxia, Pujiang, Pengshan, Meishan, Hongya, Danleng, Jiajiang, Qingshen, and Mingshan. (Footnote 3) The area covered by this base and the provinces in it are entirely congruent with the "Western Sichuan Commodity Grain Base" planned by authorities concerned. The individual counties in the latter do not meet the three standards we have proposed, thus they have not been included.) Their connected tracts of land are found in the western part of the Sichaun basin, principally on the Chengdu plain where water and soil conditions are the best in the entire province and where farmland is predominantly paddyfields that can be both irrigated and drained and that produces consistently high yields. This is Sichuan's renowned granary for the production of rice and wheat. Grain yields for the entire base average more than 900 jin per capita, approximately 40 percent higher than for the province as a whole. The commodity rate averages 22 percent, and the interarea commodity rate is 14.6 percent, both far higher than in other parts of the province. Though this area has only between 10 and 12 percent of the province's farmland area and gross output of grain, it provides 22 percent of the province's total amount of commodity grain, and already plays the role of a commodity grain base for the whole province. Of course, there remains a substantial gap in both per capita grain output and the commodity grain rate between one county and another within a base, and the size of the role each plays varies. For example, in Wenjiang County grain yields are more than 1,100 jin per capita; and the commodity grain rate is more than 30 percent. In some counties, however, grain yields per mu and yields per capita are no more than 800 jin, and the commodity rate is only about 15 percent. Thus, a great potential remains to be tapped in commodity grain production.

B. Southeastern Hills of the Basin a Major Commodity Grain Producing Area

The southeastern hills of the basin include Qianwei, Jingyan, Rongxian, Anyue, Yibin, Nanxi, Changning, Jiang'an, Naxi, Hejiang, Huxian, Fushun, Longchang, Rongchang, Yongchuan, Dazu, Tongliang, Tongnan, Bishan, Baxian, Changshou, Hechuan, Wusheng, Yuechih, Lingshui, Dianjiang, Dazhu, Daxian, Kaijiang, and Liangping for a total of 30 counties. The land in these counties lies in a continous tract in the southeastern part of the Sichuan basin, principally in the hills (though a small number of counties are parallel mountain valley areas, they are also predominantly hills) where heat conditions are better than in other parts of the basin. Generally, there are many fields on little land and mostly paddy, sweet potatoes, and wheat are grown. The proportion of cash crops is fairly small. The commodity grain rate averages 15.9 percent (higher than the average for the province as a whole), and the region produces approximately 35.8 percent of the province's total commodity grain. This is the high commodity grain producing area of the province. Since water conservancy is lacking, however, and many fields remain covered with water during winter, increase in grain yields has been slow while increase in population has been fast. Grain yields average only slightly more than 602 jin per capita (or as high as 700 jin in a few counties), but lower than the average for the province as a whole; hence, commune members' grain rations are fairly low and there is a shortage of grain for personal consumption. This area still lacks a stable foundation for development into a commodity grain base. Nevertheless, during the 1950's, this grain area increased its commodity grain rate by an overall 20 to 30 percent or more. Two-thirds of its counties annually provided 100 million jin or more of commodity grain (now only six counties do so), making a very great contribution to the nation. Consequently, if a good job can be done in the building of water conservancy and in transforming winter wetlands, a strong attack made on yields per unit of area, the multiple-cropping index increased, the mechanization of agriculture realized, and the labor productivity rate increased, this producing area could revive its historical role to become a commodity grain base, in fact as well as in name, that produces abundant grain.

C. The Southwestern Sichuan Broad Valley and Basin Commodity Grain Reserve Base

This region includes Xichang, Mianning, Dechang, Miyi, Yanbian, Huili, and Puge, a total of seven counties, the first five of which lie in the Anning River basin and in the lower reaches of the Yalong Jiang. Fields are concentrated in broad valleys where the land is flat and the soil thick, making for ready irrigation. Most fields are paddyfields and heat is plentiful making this one of Sichuan's granaries where grain yields average 650 to 800 jin per capita and the commodity grain rate ranges between 16 and 21 percent, making the region second only to the flatlands in the western part of the Sichuan basin. As the scale of future industrial construction expands further in the Dukou-Xichang industrial area, which is next door to these seven counties, the need for commodity grain will increase steadily, so it is essential that stable commodity grain production bases be built nearby. The multiple-cropping index and grain yields for these seven counties is currently fairly low. The amount of commodity grain they provide annually is limited (140 million jin), and far from satisfying needs. It will become necessary to do more with existing basic farmlands in these broad valley tracts (particularly the building of water conservancy, soil improvement, and greater fertilization), and to tackle the job of increasing yields and reforming the farming system. In another realm, the inventorying of available wastelands should be accelerated, should be developed, and planning improved to build the area into southwestern Sichuan's commodity grain production base as soon as possible.

The three aforementioned bases (or reverse bases) cover 60 counties, which is only 30 percent of the province's total number of cities and counties, yet they can produce 60 percent of the province's total grain. Firm attention to this 30 percent holds not only decisive significance for commodity grain production in Sichuan, but has a crucial influence on all grain production. For specific details on how to bolster the building of commodity grain bases, please see the "subregion" section below (chiefly chapters 6, 8, and 12).

Second Section: Cash Crops

1. Basic Characteristics of Cash Crop Production Patterns

A. Numerous Varieties of Cash Crops; Rapid Development; Important Position

Sichuan has numerous varieties of cash crops, not only all sorts of very warm-zone crops and semitropical ones as well (such as cotton, peanuts, sesame, sugarcane, flue-cured tobacco, sun-cured tobacco, ramie, jute, and ambari hemp), but also crops produced in temperate and cold zones such as sugar beets and flax as well as some special varieties of tropical cash crops (such as coffee and sisal hemp).

Since liberation, the growing of cash crops has advanced very rapidly in Sichuan. Increase in their growing area has been more than 10 times as fast as for grain crops, and the speed of increase in gross output has also been more than three times as great as for grain crops. They have made a very great contribution in supporting the building of socialism in the country and in improving the people's standard of living.

Sichuan's production of cash crops holds an important position in the country as a whole. This includes the area sown to rape and gross output of rapeseed, which stand first in the whole country. The area sown to ramie holds second place in the country as well; both the area sown and gross output of sugarcane hold fourth place; and both the area sown and gross output of cotton and peanuts account for a substantial portion of the national totals.

B. Both a Wide Area of Distribution and Relative Concentration

Every part of Sichuan Province grows cash crops with the exception of several counties in Garze Zang and Aba Zang Autonomous Prefectures in the northwestern part of the province. Ninety percent of the cities and counties that grow cash crops grow rape, and approximately 80 percent of them grow peanuts, sugarcane, and flue-cured tobacco; 40 percent grow cotton and sun-cured tobacco. At the same time, the pattern of cash crops in Sichuan Province is fairly concentrated, with virtually every variety of cash crop having its own concentrated area of production. Seventy-five percent of the cotton area and approximately 82 percent of the gross output of cotton in the whole province is concentrated in 17 counties in the hill region within the basin. This includes Jianyang and Renshou Counties, which have more than one-fifth of all the cottonfields in the province. Approximately 30 percent of rapeseed output and more than 80 percent of the hemp-growing area of the province are concentrated on the Chengdu plain; 80 percent of the province's ramie-growing area is concentrated in Daxian Prefecture; 30 percent of the sugarcane-growing area in the whole province is concentrated in the Tuo Jiang basin, more than one-fifth of it in Neijiang and Zizhong Counties; more than 68 percent of the flue-cured tobacco growing area is concentrated in Ziyang, Jianyang, Gulin, and Xuyong Counties; 30 percent of the sun-cured tobacco growing area is concentrated in Shifang and Mianzhu Counties. The same situation applies to the distribution of other cash crops.

It must be pointed out that inasmuch as cash crops are used as industrial raw materials, the end products from which are mostly shipped elsewhere, the pattern of most cash crops must be fairly concentrated and should not be dispersed in order to gain a fairly high commodity rate, a fairly high yield per unit of area and a stable supply of faw materials, as well as in order to be amenable to centralized management, procurement, and transportation. Were leaders not to devote serious attention to this matter and commune members not to act responsibly, no one taking charge at the top and no one managing at the bottom, it would be very difficult for production to move ahead. Judged from this standpoint, there is insufficient concentration of the growing of the aforementioned cash crops. In particular, the growing of cash crops in 101 different cities and counties shows, to a certain extent, the characteristics of a small agricultural economy of self-sufficiency that should be changed gradually.

C. More Room for Improvement of Yields and Commodity Rates

Cash-crop yields per unit of area are fairly low throughout Sichuan Province. Comparison of data for 1975, for example, shows yields for major cash crops such as cotton, sugarcane, flue-cured tobacco, and ramie to have been lower than the average for the country as a whole. (Footnote 4) (Data for the whole country for 1977 is lacking; hence, 1975 data have been used.) Yields for cotton, sugarcane, and ramie were among the lowest for the provinces and autonomous regions of south China, and yields of flue-cured tobacco stood in 10th place for the country as a whole. Only for oil-bearing crops (rapeseeds and peanuts) were yields fairly high. Yet another indication of low yields is that yields for major cash crops have not reached all-time highs; instead, for quite a few crops the extent of decline has been very great. In addition, there is an extremely great disparity among yields per unit of area from different places within the province. No matter the cash crop, the difference between counties with high and low yields has been between severalfold to more than 10-fold. The disparity between high- and low-yield communes and brigades is even more conspicuous. Nevertheless, the foregoing circumstances show fully that there is an extremely huge potential for increase in cash crop yields in Sichuan Province.

Table 17. Comparison of Yields of Major Cash Crops in Sichuan Province

Crop	1977 yield (jin)	All-time year	High year yield	Percent of all-time high year
Cotton	65	1967	80	-19
Rapeseed	119	1971	147	-19
Sugarcane	3,665	1958	6,885	-47
Sun-cured tobacco	152	1953	214	-29
Flue-cured tobacco	183	1972	198	- 8
Ramie	72	1956	99	-27
Hemp	100	1956	113	-12

Generally speaking, the higher commodity rate for cash crops than for other crops is a function of their nature. However, as compared with other provinces and regions, and with the situation that has existed historically, commodity rates for cash crops in Sichuan today remain overly low. For example, in 1977 the commodity rate for rapeseed for the province as a whole averaged less than 50 percent, which was much lower than the all-time high. The commodity rate for peanuts was less than 40 percent, less than half the all-time high. The commodity rates for cotton and sugarcane were likewise far from reaching the all-time highs. Such a situation is obviously very inconsistent with requirements for development of the national economy.

D. Fairly Large Contradictions in Production Patterns Among Various Crops

Sichuan still does not produce an abundance of grain. In most villages, standards for commune members' grain rations are not high. Under these circumstances, as a result of the need "to take grain as the key link" and to achieve self-sufficiency in grain or even to provide commodity grain in areas in which the growing of cash crops is concentrated, in their planning of land use, their care of crops, investment of labor and application of fertilizer, many communes and brigades do everything possible to look after grain crops, placing cash crops in a subordinate position. In planning land use, in particular, cash crops (especially spring-sown cash crops) are frequently relegated to poor and infertile land and grain is intercropped among them as well. (It is estimated that in major cotton and sugarcane areas, approximately 60 percent of cottonfields and 80 percent of canefields are intercropped with grain, grain taking up approximately 20 percent of the space). This results in a serious inability to get the most out of the cash-crop area. The foregoing situation has an extremely adverse influence on the development of cash-crop production.

In addition, differences in "award sales" standards for the growing of cash crops also frequently give rise to contradictions that adversely affect both production and distribution. This happens mostly in production brigades that grow several different cash crops at the same time. When no "award sales" are given for the growing of certain cash crops, such crops are usually relegated to a mountain top or a forest floor. Conversely, those for which "award sales" are given or for which "award sales" standards are fairly high may elbow aside other cash crops, wreaking havoc in crop patterns. Consequently, formulation of equitable economic policies has a great deal to do with development of cash-crop production.

2. Present Situation and Avenues For Development of Major Cash Crops

A. Cotton

Cotton holds second place after rapeseed as a cash crop in Sichuan Province. For many years, its growing area has remained at around between 4 and 4.2 million mu for seventh place among the country's provinces and autonomous regions.

Cotton is a crop that likes plenty of warmth and sunlight, and it also requires a fairly large amount of moisture and a fairly hot environment. (Footnote 5) (Generally ideal conditions for the growing of intermediate ripening cotton are as follows: Cumulative temperatures of 4,300°C or more when the temperature is equal to or greater than 10°C, between 9 and 10 hours of sunlight daily, a relative humidity of approximately 50 percent, and 600 mm or more precipitation during the growing season.) A look at climatic conditions in the Sichuan basin shows sufficient heat and precipitation but insufficient sunlight (an average of 4 to 5 hours per day), an overly large number of rainy and overcast days (approximately 45 percent rainy days from July through October), and an overly high relative humidity (approximately 80 percent) that leads to an increase in the boll-rot rate and the flower-blighting rate that have a seriously adverse effect on the quantity and quality of cotton.

A weighing of all conditions shows that the cottonfields in Sichuan should not be expanded. However, in order to make the province self-sufficient in cotton yarn and cloth, an annual purchase of more than 5 million dan of ginned cotton is necessary. With no increase in the cottonfield area, this means that yields will have to be doubled from what they now are. Thus, the gap is a very great one that will require strong action.

Though the province's cottonfields are pretty well concentrated in the middle and northern parts of the Sichuan basin, in Renshou, Jianyang, Jintang, Anyue, Lezhi, Zhongjiang, Shehong, Santai, Suining, Lianxi, Xichong, Nanbu, Langzhong, Yilong, Bazhong, Pingchang, and Yihan Counties, 17 counties in all, in another approximately 50 counties planting of cotton is dispersed over nearly 500,000 mu (an average of fewer than 10,000 mu per county) in which yields and the commodity rate are 52 and 15 percent lower, respectively, than in the aforementioned concentrated growing areas. Were all of these cottonfields to be concentrated in one area, output of commodity cotton would increase by approximately 200,000 dan. In addition, even in the counties in which cotton production is concentrated, when cotton quotas are assigned, some counties have everybody share responsibility with every brigade growing cotton, which still makes for dispersed production. General methods have to be suited to local circumstances and the principle of appropriate centralization applied to this situation, quotas being further concentrated in communes and brigades where conditions are best and results optimum in order to make the most of their expertise and advantages for production and raise the degree of their specialization. Thus, a very great potential remains to be tapped in the readjustment of existing cottonfield patterns.

Most cottonfields in Sichuan are found on terraced hillsides. Only in Suining, Pengxi, Shehong and Santai counties in the middle reaches of the Fu Jiang are some cottonfields located on river valley flatlands. Thus, an overwhelming majority of cottonfields lack sources of water, the layer of soil is thin, fertility is low, and the soil cannot stand drought. Most cotton producing areas are also located in areas in which spring and summer drought are most severe. In still others (Bazhong, Pingchang, and Yihan Counties), the threat of drought during the dog days of summer is serious. Thus, the paradox of cottonfields being located in places where there is no irrigation is rather conspicuous. At the present time, water used on terraced hillside cottonfields is still mostly carried in buckets suspended from poles. This requires great exertion and is very inefficient. The building of water-storage ponds on slopes should be made one of the main components of cottonfield capital construction plans, one water-storage pond per 10 to 20 mu of hillside cottonfields being built as quickly as possible in order to increase the ability of cottonfields to withstand drought and obtain consistently high yields.

Cotton varieties in many cotton-producing communes today have become mongrelized and degenerate. Boll weight has decreased; fibers have become shorter, and ginning outturn had declined to around 35 percent. This is also one of the important reasons affecting output and quality. In recent years, the area affected by fusarium wilt has also increased steadily, posing a fairly serious threat to cotton production. The four-level agricultural science network should be relied upon in the future to do a good job of plant selection and propagation as well as purification and rejuvenation and improvement of quarantine work. Seriously infested areas should promote disease-resistant varieties.

Table 18. Per Unit Area Yield and Commodity Rate of Primary and Secondary Cotton-Producing Counties in Sichuan

Particulars	Number of counties	Area (10,000 mu)	Per unit area yield (jin)	Gross output (10,000 dan)	Centralized procurement (10,000 dan)	Commodity rate (percent)	Commodity cotton provided per mu
Total province	75	406.0	65.2	264.9	236.1	89.1	58.3
Main producing counties (100,000 mu or more)	17	303.1	72.0	217.9	197.3	90.5	65.2
Secondary producing counties (50,000 to 100,000 mu)	8	53.9	55.6	30.0	25.8	86.4	48.2
Counties with scattered production (less than 50,000 mu)	50	49.0	34.5	16.9	13.0	76.8	26.4

Note: In 1978, gross output of cotton for the whole province was 2,964,000 dan.

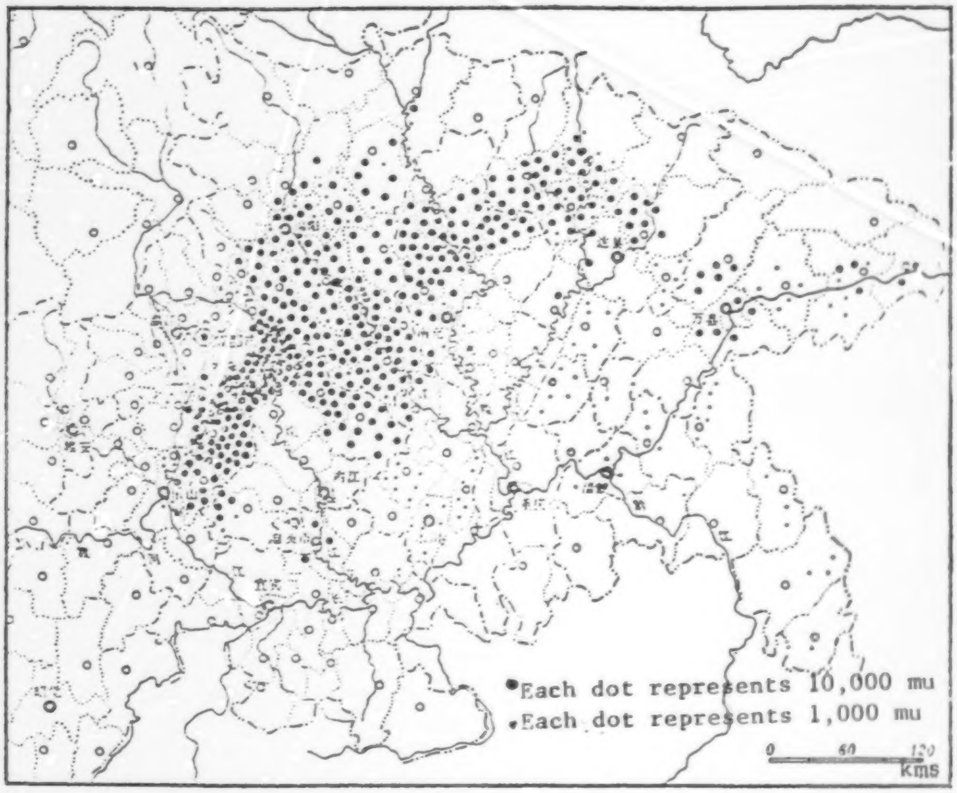


Figure 22. Cotton Distribution in Sichuan

In an overwhelming majority of cottonfields in Sichuan's cotton areas, a system is used whereby rows are reserved for the growing of winter crops in addition to which uncertain temperatures in spring and frequent spring drought mean that numerous gaps in seedlings will occur when cotton seeds are sown directly into the ground. The growing of seedlings for transplanting is a good way to get full stands from early sowing. Climatic conditions in Sichuan's cotton areas permit the growing of seedlings during late March in most cases (under plastic mulch or by applying warming agents to the surface of the soil). Transplanting can begin in early April and by the end of April a full stand should be growing. By contrast, direct sowing requires waiting until mid-April when the temperature is higher and there is sufficient moisture, with care being exercised in the sowing of seeds in order to insure a full stand from a single sowing. But this causes too much delay in the season; consequently, the growing of seedlings for transplanting should be vigorously promoted.

Inadequate fertilization and insufficient planting density is yet another major reason for poor yields. In the future, more fertilization will have to be done and the intercropping of green manure with cotton will have to be actively promoted. Where cottonfields are not well fertilized, density of plantings should be increased appropriately to make fullest use of increased yields from plant colonies. This is the key to getting early maturing bumper yields from large areas.

"Thirty percent planting and 70 percent care" is particularly the case with regard to cotton production. Under influence of a psychology of emphasizing grain while slighting cotton, however, many places did not give timely care to cottonfields, did not take pains, and even did not designate people responsible for caring for the cottonfields. This seriously hurt output. In places where cottonfields are fairly concentrated, specialized cotton production teams have to be set up and careful attention given to all-round care before the transplanting of intermediate rice and following the harvest of early rice, and before the transplanting of late rice. In addition, effective actions have to be taken to do everything possible to reduce damage caused by autumn rains during the cotton harvest season.

Practice has demonstrated that though climatic conditions in Sichuan are not ideal for the growing of cotton; nevertheless, by taking a firm grip on the aforementioned matters, fairly high yields can be harvested. In the past some counties in Sichuan have produced yields of more than 100 jin per mu of ginned cotton from large areas. Today quite a few high-yield communes and brigades also produce more than 100 jin per mu. Their deeds show the very great potential for increasing cotton yields in Sichuan.

B. Rape

The rape-growing area in Sichuan accounts for 37.1 percent of the total area in cash crops and 77.4 percent of the area of oil-bearing crops. Rape is the primary cash crop in the whole province. During the period immediately following liberation, Sichuan had a rape-growing area of only 3.44 million mu. By 1955, this had expanded to more than 5.9 million mu and gross output of rape was 30 percent of the national total. Sichuan was also the champion among all provinces and regions in the amount shipped. In recent years, however, the rape-growing area has hovered around the 5 million mu mark and gross output has been approximately 6 million dan, declining to 21 percent of the national total. (Footnote 6) (Gross output of rapeseed in 1978 was 8,835,000 dan, a meteoric rise of 46.3 percent from the previous year.) With rapid development of the national economy and steady increase in the need for rapeseed in the daily lives of the people, there is an increasing sense of insufficient rapeseed production. Today even seven prefectures and autonomous prefectures are not entirely self-sufficient in edible oil. Consequently, vigorous expansion of rapeseed production is a major task in future agricultural production.

Eighty-seven percent of the rapeseed-growing area in Sichuan is found on the flatlands and in the hill areas of the Sichuan basin. Since it is the principal winter crop grown in paddyfields, most of it is grown in fields that are used for the growing of both wetland and dryland crops, with little being grown on drylands. It is found mostly in the same places where fields that grow both wetland and dryland crops are found. Within the Sichuan basin, for instance, the greatest concentration of fields used for the growing of both wetland and dryland crops is in Wenjiang Prefecture where the ratio of winter farming of paddyfields is greatest and the most rape is also grown (occupying about 13.6 percent of the farmland area). Leshan Prefecture is second and Daxian Prefecture is third. The percentage of fields used for both wetland and dryland crops is very low in other prefectures, and the percentage of farmland occupied by rape is also very small. This includes Yibin Prefecture where, despite a high concentration of paddyfields, the percentage of farmland occupied by fields used for both wetland and dryland crops is very small (about 1 percent) because of the large number of winter paddyfields, and the rape-growing area amounts to only 3.2 percent of the farmland. Clearly expansion of the area on which both wetland and dryland crops are grown is an important avenue for expanding the production of rapeseed. As winter paddyfields undergo future transformation, the province's rape-growing area will increase from its present size. Thus, places having a fairly large number of winter paddyfields and fields allowed to lie fallow during winter for spring planting such as Yibin, Jiangjin, Nanchong, Neijiang, and Xichang Prefectures will be important places for future expansion of rape growing. In addition, tracts at more than 3,000 meters above sea level on the plateau in northwestern Sichuan offer definite prospects for the growing of ramie, since the growing of grain crops there risks damage from frost and freezing while spring-sown ramie, which has a shorter growing season, produces consistently high yields.

Vigorous increase in yields is the main way to expand production of rapeseed in Sichuan. Rapeseed yields averaged 147 jin per mu in Wenjiang Prefecture in 1977, 24 percent higher than the average for the province as a whole (119 jin). Twelve of the remaining 14 prefectures or autonomous prefectures had yields lower than the average for the province as a whole, most of them producing less than 100 jin per mu. Thus, general increase in their yields is of crucial importance in expanding rape production for the province as a whole.

Experience with high yields year after year in Shifang County shows the need to devote serious attention to improvement of varieties and matching them rationally in order to change the low rapeseed yields. Cabbage-type rapeseed varieties that tolerate fertilizer, resist lodging, are only lightly damaged by diseases and insect pests and that produce consistently high yields should be completely substituted for the bok choy-type yellow rape (yields from the former being about 40 percent higher than for the latter). In a two crop system high-yield intermediate-maturing late varieties should be mostly planted. In a three-crop system, because of the shortened rape-growing season and the delay in sowing it, intermediate-maturing early varieties and early-maturing high-yield varieties should be grown. This is a prerequisite for harvesting high yields from rapeseed that has been transplanted late. In order to maintain and improve the characteristics of fine varieties, seed selection, purification, and rejuvenation must be maintained year after year. Experiments have shown that early transplanted and late transplanted high-yield varieties alike should be fairly densely planted (7,000 to 8,000 plants per mu.) Early-maturing late transplanted varieties in particular should be planted fairly close since their plant height is fairly low. In addition, the different fertilizer needs at different stages of development of rape should

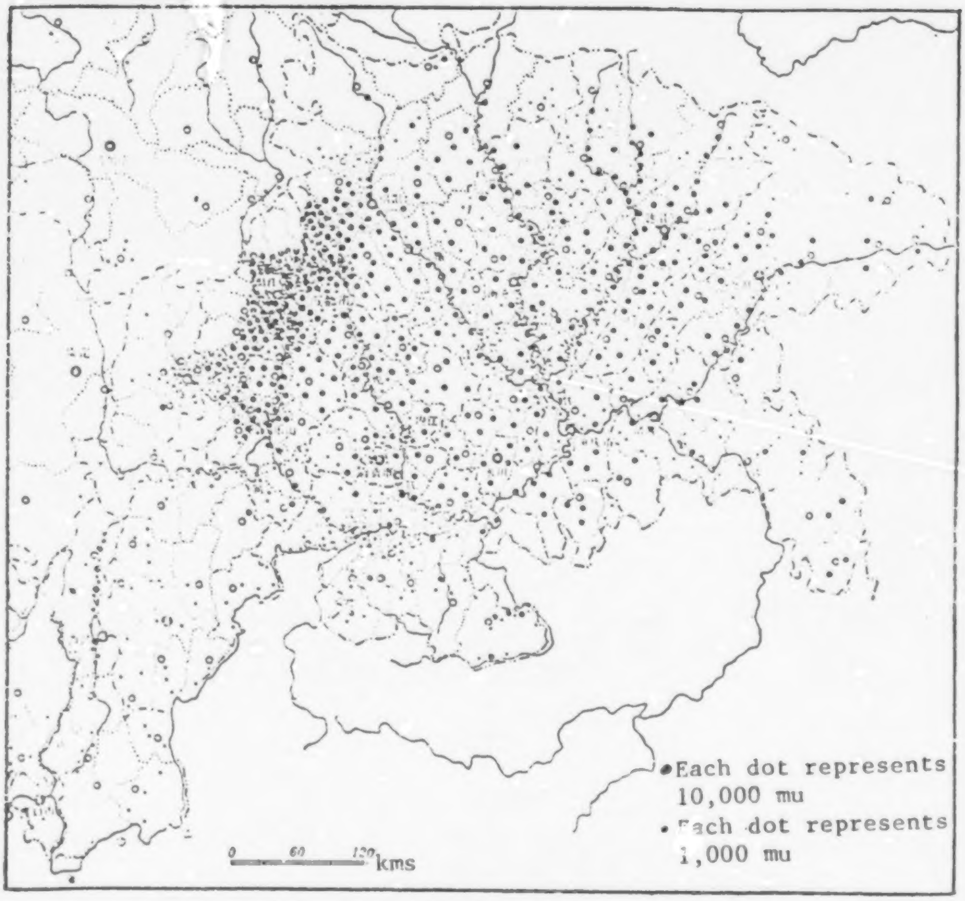


Figure 23. Tea Oil Distribution in Sichuan

be kept in mind and sufficient base fertilizer should be put down, fertilizer given to seedlings, mature plants heavily fertilized, and care exercised in fertilizing during flowering, mostly farmyard manure used with the addition of some phosphate plus a suitable amount of chemical fertilizer. The foregoing body of experience is of major significance for guiding increased rape yields throughout the province and merit general promotion.

C. Sugarcane

Sichuan has a long history of sugarcane production; however, on the eve of liberation the province's sugarcane-growing area totaled only slightly more than 300,000 mu and gross output was 11 million dan. After liberation, sugarcane production grew very quickly and by 1977 the growing area had reached 760,000 mu with a gross output of 27.63 million dan. (Footnote 7) (By 1978, gross output of sugarcane had reached 37.06 million dan in a more than one-third net increase over the previous year.) This was still far from meeting needs and large quantities of sugar had to be shipped into Sichuan from other provinces every year. Consequently, vigorous expansion of the growing of sugarcane has become an urgent task in agricultural production in Sichuan.

The Sichuan basin gets plentiful heat and copious rainfall. The area suited to the growing of sugarcane is a vast one and conditions for growing sugarcane are better here than in the various provinces along the middle and lower reaches of the Chang Jiang. On both banks of large- and medium-size rivers in the southern and central parts of the basin, in particular, not only are heat conditions superb, but there is a large area of river flats and sandy soil suitable for the growing of sugarcane. Water transportation is also extremely convenient; thus, most of the sugarcane-growing area in the province is concentrated here. It is most concentrated in the middle and lower reaches of the Tuo Jiang centering around Neijiang and Zizhong Counties. In the southern part of Xichang Prefecture, heat conditions are even finer. When irrigation can be assured, this area is even better than the aforementioned ones for the growing of sugarcane.

During the early 1950's, average per unit area sugarcane yields in Sichuan Province held steady at slightly more than 5,500 jin for many years (reaching a maximum of more than 6,800 jin) for first place in the whole country. In recent years, however, per unit area yields have fallen to between 2,000 and 3,000 jin with Sichuan retreating to 11th place in the country. Very clearly, vigorous increase in yields remains the main way to expand sugarcane production in Sichuan Province. Were yields to revive everywhere to the all-time highs, output of sugarcane for the province would increase by more than 80 percent. Readjustments and improvements in crop patterns, the farming system and methods of care will have to be made in order to achieve this.

Though the growing of sugarcane is relatively concentrated in an overall sense today; nevertheless, the growing area for a considerable portion of sugarcane is not sufficiently rational. The sugarcane-growing area in 38 percent of the province's sugarcane-growing counties is less than 1,000 mu. Only 15 percent of all counties have more than 10,000 mu. Even in the latter instance, some use the method of "a sprinkling here and there," each brigade growing only 1 or 2, or 3 to 5 mu. Both yields and commodity rates are low. In some cases, the relegation of sugarcane growing to hillsides, poor or infertile land, and to the tops of hills is an even more general practice. Thus, readjustment of crop patterns is extremely necessary. Jiangjin County combined readjustment of state purhcases with the institution of grain ration policies. Acting in accordance with the principles of suiting general methods to local situations and suitable concentration of growing areas, the original 1,373 sugarcane-growing brigades throughout the province were condensed to 934 (in a one-third reduction) and the growing area increased 50 percent in a general revival to the all-time high of the scale of production. Since sugarcane output is high, requires a large amount of transportation, and cannot be stored for long, it has to be hauled away and processed at once. Thus, insofar as possible, sugarcane fields should be laid out along rivers and highways in places requiring hauling no more than 5 km. The best sites are alluvial soil along both banks of rivers and the first and second levels of terraced fields.

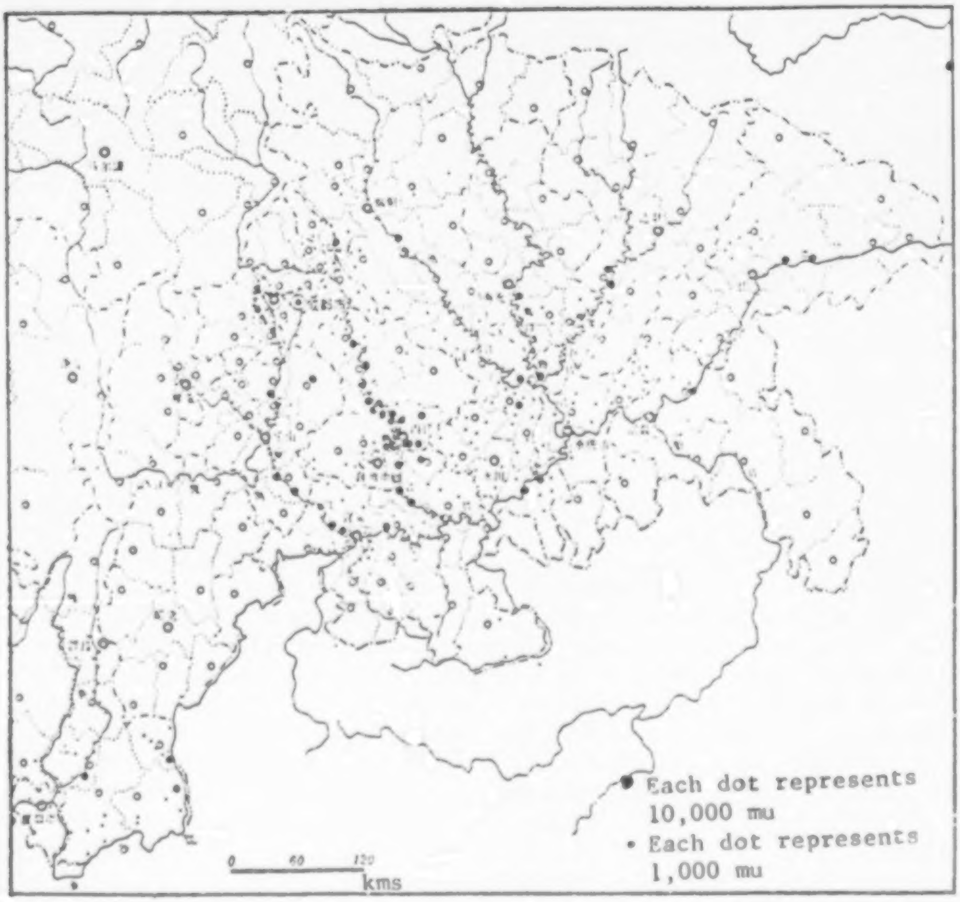


Figure 24. Distribution of Sugarcane in Sichuan

Formerly sugarcane was generally planted in the spring in Sichuan Province, but since spring planted sugarcane had a growing season of only 8 to 9 months, neither cane nor sugar yields were very high. Sugarcane planted in the fall or winter, on the other hand, can be planted early and matures early (between 3 and 4 months and more than 1 month, respectively, as compared with spring planted sugarcane). Sugar accumulates in it rapidly, yields are large and the sugar content is high. (Footnote 8) (Results of experiments conducted at the Neijiang sugarcane planted in the fall as compared with sugarcane planted in the spring, and a 5.78 percent higher sugar content. Sugar content per mu was 23.87 percent higher.) For this reason, the suiting of general methods to local situations to change from spring to fall and winter planting hold very great significance for increasing yields. In the southern and eastern parts of the Sichuan basin, as well as in the southern river valleys of Xichang Prefecture, where winters usually have no temperatures below 0°C, this kind of planting is suitable for promotion and popularization.

The basic element in obtaining high yields from sugarcane is to insure a sufficient number of basic seedlings and an increase in the weight of individual stalks. Thus, it is necessary to increase density appropriately so that there are between 6,000 and 8,000 basic seedlings per mu. In addition, it is necessary to be sure to fertilize properly (heavy base fertilization and followup side dressings from time to time), providing water and fertilizer in combination so that throughout its vegetative growth period the sugarcane has a steady supply of water and fertilizer to promote an increase in the weight of individual stalks. It must be noted that under present circumstances, the planting of sugarcane fields at the proper density is often prevented by the companion cropping of grain, particularly the companion cropping of corn. Not only does this reduce the number of sugarcane stalks per mu, but the two crops shade each other, resulting in a 15- to 20-percent or greater decline in sugarcane yield (depending on the density of the corn). For this reason, in line with the premise of correct handling of the relationship between grain and sugarcane, prohibition of the growing of grain in sugarcane fields is of major significance for increasing yields of sugarcane.

A look at the situation as it exists in Sichaun show- that appropriate expansion of the sugarcane-growing area is also necessary. The best way to expand the area lies in the development of river flats. Not only does this cause no conflict with grain for land, but the soil on river flats is suited to the growing of sugarcane; moisture is plentiful; and the flood season also deposits fertile mud on the flats. If varieties that withstand drowning are selected, sugarcane yields would be markedly higher than from most terraced hillsides. In recent years many counties have taken this road for rapid development of sugarcane production.

D. Flue-Cured Tobacco

Sichuan has several decades of experience in the growing of flue-cured tobacco; however, as of the eve of liberation, the flue-cured tobacco area for the whole province totaled no more than 30,000 mu and tobacco leaf output was only approximately 30,000 dan. After liberation flue-cured tobacco production developed extremely rapidly, and by 1977 the flue-cured tobacco area reached 310,000 mu and gross output was 570,000 dan.

Flue-cured tobacco grows best when the temperature is between 18 and 25°C. It requires rather ample sunlight (a sunshine rate of higher than 50 percent is best). If sunlight is insufficient, thin leaves, loose tissue, poor flavor, and a low oil content will result. Fairly large difference between daytime and nighttime temperatures helps the accumulation of sugar in flue-cured tobacco. It also requires an ample supply of moisture. If temperatures climb higher than 28°C during the ripening period, the tobacco's alkali content may become overly high, adversely affecting quality. The foregoing requirements show that though flue-cured tobacco is grown in the Sichuan basin, climatic conditions there are not entirely ideal for it. For example, sunlight is insufficient (during April, May, June, and December, the sunshine rate usually averages only 20 to 40 percent); the difference between daytime and nighttime temperatures is slight; and damage from summer and dog days drought is serious. August and September frequently have temperatures above

28°C, and during harvest time the autumn rains go on and on. This has a substantially adverse effect on both flue-cured tobacco quantity and quality. Furthermore, some places in Sichuan that are territorially contiguous with the Yunnan-Guizhou plateau (such as Huili and Huidong Counties, Shuyong County, and the southern part of Gulin County) have terrain and climate that differs greatly from that of the Sichuan basin and they are close to Yunnan and Guizhou where the aforementioned unfavorable conditions do not exist; therefore flue-cured tobacco quality is higher there, and these are relatively ideal places for the growing of flue-cured tobacco. For this reason, in any future expansion of the tobacco-growing area, these counties should be considered first. Meanwhile, the old tobacco-growing areas in the Sichuan basin (Ziyang County in particular) should mostly run existing tobacco fields well and go on to take effective action to improve yields and quality.

Flue-cured tobacco is a cash crop that requires a fair amount of skill. To a very large extent, both output and quality are determined by how well it is planted and taken care of and skill in curing it. Practical experience has shown that fine varieties and sturdy seedlings are requisites for high yields; early planting avoids or reduces adverse effects from summer drought and continuous heavy autumn rains. Thus, mastery of these three skills is very important for flue-cured tobacco production. Flue-cured tobacco also requires very close attention to fertilization. Not only does it require heavy fertilization and early applications of side dressings, but it requires mostly farmyard manure (best is withered stems of oil-bearing crops and livestock manure), and a suitable amount of nitrate fertilizer. Unless it receives it, the color and luster of the leaves, and the full taste and aroma of the tobacco cannot be assured. This is one of the reasons why the quality of tobacco from some tobacco-growing places is so poor. In order to assure a supply of withered stems of oil-bearing crops, a system of rotational cropping of rape and tobacco should be actively promoted, the rape helping the tobacco. Sichuan's tobacco-growing areas have not given sufficiently serious attention to the curing of tobacco in the past, and this adversely affected the quality of flue-cured tobacco. In recent years, some progress has been made. Nevertheless, the advance experiences of fraternal provinces should be studied as a basis for vigorous effort to improve curing techniques.

3. Pattern of Major Cash-Crop Bases

Many years of practical experience everywhere has shown there to be numerous advantages from the establishment of production bases for cash crops. It helps strengthen leadership and unify the planning of production; it helps accumulate experience and raise both output and quality; it helps raise commodity rates and stabilize the supply of raw materials for industry; it helps with the rational distribution and building of processing enterprises; and it hastens the mechanization of agriculture. For these reasons, the building of bases is a major step for development of cash-crop production.

Selection of sites for bases should be done largely on the basis of natural conditions, historical farming habits, existing production bases, and availability of transportation and following the principles of suiting general methods to local situations and suitable concentration. Most bases consist of a county, a commune, or a production brigade. The "bases" listed below have been formed by the grouping together in accordance with the foregoing principles of cities and towns possessing conditions that apply to individual counties. Some of these large "bases" are already carrying a major share of the load for the whole province in the production of cash crops, while others will carry such a heavy load. Serious attention to these several large tracts is of crucial importance to cash-crop production for the whole province.

A. Cotton Production Bases

As was said previously, more than 74 percent of Sichuan's cottonfields are concentrated in 17 cotton-producing counties in the hill region of the basin where the cottonfield area totals more than 3 million mu and is responsible for supplying the province with more than 83 percent of its cotton. These 17 counties are linked into a continuous tract that stretches along the hills in the western and northern parts of the basin to form a complete and fairly large cotton-production base.

All of the counties that make up this base have a frost-free period of 280 to 320 days; cumulative temperatures for days when the temperature is 10°C or higher range from 5,200 to 5,700°C, and precipitation is approximately 1,000 mu annually. Both the amount of heat and precipitation are better than in most large bases throughout the country. However, this base gets only between 1,300 and 1,500 hours of sunlight annually for a 30- to 35-percent sunshine rate, which is far less than for other bases in the country. But this is still relatively better than in most other parts of the Sichuan basin. Each of the counties in the bases face the threat of spring, summer, and late summer drought, but there is too much rain during the fall when dreary and rainy days go on and on with bad effect on cotton production.

For details on development of this base, please see Section 4 of Chapter 7.

B. Rapeseed Production Bases

(1) The Rapeseed Base on the Basin's Western Plain

This base includes most of Wenjiang and Leshan Prefectures as well as the western part of Mianyang Prefecture, accounting for one-third of the rapeseed-growing area of the whole province and nearly 40 percent of the province's gross output. It includes several counties in which the rapeseed-growing area already accounts for more than 20 percent of the area planted to winter crops and more than 15 percent of the farmland area. Clearly production is fairly concentrated.

This place is located on a flatland and monadnock area where water, soil, and fertilizer conditions are fairly good. Historically this has been a major rapeseed production base in the province and in the country as well. Since it covers a large area where growing is concentrated, both leaders at all levels and the masses in general devote fairly serious attention to rapeseed production. Cultivation and care is also fairly meticulous and yields are higher than the average for the province as a whole, making it a large-area, high-output, concentrated rapeseed-growing area renowned throughout the country.

Development of the individual counties that make up the base is currently very uneven. On the one hand, per unit area yields are not uniform. For example, rapeseed yields in Shifang County are more than 200 jin per mu, while they are less than 150-odd jin in most other counties. On the other hand, a substantial number of counties grow a fairly low percentage of rape (less than 15 percent of the winter crop growing area and less than 10 percent of the farmland area). Thus, the consolidation and development of this base will require, first of all, an all-round spread of experiences in the production of high yields in an effort to obtain balanced high yields everywhere. Second, some counties should use equitable readjustment of the percentage of winter crops grown as a basis for appropriate expansion of their rape-growing area so that they occupy between 20 and 25 percent of the winter-crop area.

(2) The Hills Rapeseed Base in the Southern Part of the Basin

This base mostly includes both banks of the Chang Jiang in the southern part of the Sichuan basin as well as the counties in the southern reaches of the Min, Tuo, and Jialing Rivers. The area planted to rape is currently not great here and there are some places where no rape is grown at all; nevertheless, the potential is greatest here for future expansion of rape growing.

The average annual temperature in this area is more than 18°C, permitting the growing of three crops. Temperatures during the period when rape is sown are around 17°C, and during the overwintering period, the temperature is 8°C or above, so there is no freeze damage. During the flowering period, temperatures reach 15°C or higher. Relative humidity is approximately 77 percent, which is very favorable for flowering and the setting of seed pods. Heat conditions are the best to be found. The soil is mostly coarse and semisandy and of fairly high fertility suiting it to the growing of crops such as rape. Most of the farmland is paddyfields (approximately 70 percent); however, the percentage of winter paddyfields is overly high (at 60 percent); thus, there is little area of fields that grow both wetland and dryland crops for the growing of rape. This definitely limits rape production. Currently rape is grown on less than 5 percent of the farmland area, a lower percentage than elsewhere in the basin. However, with the further extension of water conservancy, the area of fields used for the growing of both wetland and dryland crops will increase greatly, and there will be room for an expansion of the growing of rape. Thus, from a long-range standpoint, this is a rape-production base with very great prospects for development. (Please see Chapter 8)

C. Sugarcane Production Bases

(1) The Neijiang-Zizhong Sugarcane Base

This base includes five counties (and cities) along the Tuo Jiang in Neijiang Prefecture, namely Neijiang City and Neijiang, Zizhong, Ziyang, and Jianyang Counties where the sugarcane-growing area totals approximately 200,000 mu or more than one-fourth the total for the whole province. This is Sichuan's oldest, largest, and most concentrated sugarcane-production base.

Climatic conditions for the growing of sugarcane range from middling to good and the basis for production is excellent by comparison with other places. Yields were also fairly high at one time; however, today's yields are lower than the provincial average (in 1977), and protection potential is a long way from being used to the full. In addition, the percentage of farmland occupied by spring-sown cash crops is fairly large (averaging approximately 10 to 15 percent) higher than the percentage for drylands, and river flats are also pretty much used to the full, so room for further expansion of the sugarcane-growing area is not large. Thus, the future program of development should be to stabilize the existing area and mount an attack on increasing yields.

(2) The Southern Basin Sugarcane Base

This includes Fushun, Yibin, Longchang, Nanxi, Gaoxian, Jiang'an, Luxian, and Hejiang Counties in Yibin Prefecture, Jiangjin in Jiangjin Prefecture, and Qianwei County in Leshan Prefecture for a total of 10 counties. Most of these counties have 10,000 mu or more of sugarcane fields, their sugarcane-growing area totaling 130,000 mu or 17 percent of the total for the province, making this the second large sugarcane-growing area in the province. The counties comprising this base lie along the Chang Jiang in the southern part of the basin or else in the lower reaches of the Min and Two Rivers where heat resources are the best in the basin and where rainfall is also greater than at the Neijiang-Ziahong base. Thus, climatic conditions are most favorable for the growing of sugarcane.

This base differs from the Neijiang-Zizhong base in that it is primarily a grain-growing area where few spring-sown cash crops are grown and the competition for land between grain and sugarcane is relatively slight. However, since the percentage of paddyfields is very high (more than 70 percent of the cultivated land), and the dryland area is limited, most of the sugarcane-growing area is located at the tops of hills or on high slopes where the soil is thin, water is lacking and conditions are poor. The amount of sugarcane that can be grown on such land is naturally very limited. Consequently, in addition to other measures that should be adopted, improvement of the soil to grow sugarcane holds major significance for increasing yields.

Along the rivers or in the middle of rivers, there are quite a few river flats and sand bars where results in the growing of sugarcane have been extremely good, yields being at least 20 percent higher than from terraced hillsides. Therefore, it is necessary both to consolidate the existing growing areas on river flats and to halt the supplanting of sugarcane by the growing of paddy rice. In addition, potential should be tapped to develop new flats that have not been exploited to expand the growing of sugarcane. (Please see Chapter 8.)

(3) The Southwest Sichuan Sugarcane Base

This includes Miyi, Dechang, Yanbian, Ningnan, Huidong, and Huli Counties with 60,000 mu of sugarcane-growing area, or 8 percent of the total for the whole province, and a gross output of less than 13 percent, making it the third largest sugarcane-producing area in Sichuan and another high-yield cane-growing area.

In the river valleys of the aforementioned six counties at less than 1,500 meters above sea level, heat resources are the very best in the whole province; sunlight is ample, and daily temperature variation is great, which greatly benefits the accumulation of sugar; hence climatic conditions are "richly endowed by nature." This is also a very important reason for the very high sugarcane yields here. However, because of the very pronounced dry season, sugarcane must be irrigated. This area also has rich soil resources. Along the banks of the Anning He lie large tracts of river flats, and Ningnan, Huidong, and Huili Counties have quite a bit of wasteland that is suitable for the growing of sugarcane. Potential here is very great for expansion of sugarcane growing provided water conservancy projects are built. In addition, improvement of the soil on a small portion of existing farmland for the growing of sugarcane also holds great prospects. However, attention must be paid to the improvement of transportation. In short, this base has vast prospects for development and it can become a major sugarcane-growing area that rivals the Neijiang-Zizhong base.

D. Flue-Cured Tobacco Bases

Though 30 counties (and cities) in Sichuan grow tobacco, more than 90 percent of production is centered in 10 counties namely Ziyang, Jianyang, Gulin, Xuyong, Meishan, Danleng, Qianjiang, Xiushan, Huili, and Huidong, that have been formed into five concentrated production areas.

The Ziyang-Jianyang tobacco growing area is currently the province's largest base for growing flue-cured tobacco with a tobacco area totaling 120,000 mu that produces 44 percent of the province's tobacco. Natural conditions here favor the growing of flue-cured tobacco, which has a long history and a fairly good foundation. Nevertheless, the quality of flue-cured tobacco is fairly poor here. It will be necessary to stabilize the growing area, pay attention to increasing base fertilization (bean cake fertilizer is best) and improving curing techniques in order to promote improvement in both quality and yields.

The Gulin-Shuyong tobacco growing area is a new one that has come into being only in recent years. Its size has grown to the present 93,000 mu (30 percent of the province's tobacco-growing area), vaulting it into the position of second largest (base for flue-cured tobacco in the province. Its production of flue-cured tobacco is centered in the county's towering mountainlands at more than 800 meters above sea level where the climate is temperate, the summers are without scorching heat, sunshine is ample, and daily temperature variation is great, making it more suitable for the growing of flue-cured tobacco than any other base. As a result, the quality of its flue-cured tobacco is good and nearly as good as Guizhou tobacco. Nevertheless, since its foundation for production is relatively poor, yields tend to be low. A major future attack should be directed at increasing yields.

The Meishan Danleng, the Qianjiang-Xiushan, and the Juili-Huidong tobacco-growing areas are relatively small, amounting, respectively, to only 34,000, 30,000, and 17,000 mu. The Meishan-Danleng tobacco area has been in existence for a fairly long time, but the other two have achieved a certain amount of production only in recent years. Natural conditions in the Huili-Huidong area resemble those in Yunnan Province and quality of this area's flue-cured tobacco is the finest in the province, with the flavor of Yunnan tobacco. Climatic conditions in the Qianjiang-Xishan area resemble those in western Hunan and Hubei Provinces, so the flue-cured tobacco produced here is different.

The aforementioned five tobacco-growing areas are better in some ways than others and their products are distinctive. They provide extremely advantageous conditions for providing raw materials that can be blended by tobacco plants in the province.

Chapter 5. Production Patterns of All Agricultural Sectors in Sichuan (Part 2)

First Section: Animal Husbandry

1. Basic Characteristics of the Pattern of Animal Husbandry Production

A. Numerous Kinds of Livestock, Large Numbers, and Very Uneven Distribution; Important Position of Livestock Raising in Farming Regions and of Animal Husbandry in Pastoral Regions

Animal husbandry holds an important position in Sichuan Province's national economy, its output value amounting to one-seventh of the GVAO. The animal power required in the farming industry and for transportation, and the meat and hides needed in the daily life of the people are all provided by animal husbandry. Much of the fertilizer needed for farm crops is also supplied by animal husbandry, and hogs, hog bristles, intestine casings, hides, and wool are all important products shipped out of Sichuan. In the eastern part of the basin, income from animal husbandry averages less than 10 percent of total earnings from agriculture. In the high mountains and plateau in the west, however, income from animal husbandry accounts for between 15 and 35 percent of total income and between 50 and 80 percent in some counties, making it a major source of livelihood for the local people.

There are many kinds of livestock in the province. Not only are there camels, but also all sorts of livestock in very large numbers, for an important position nationally. The province stands first in the country in the number of hogs and water buffalo and second in the number of goats. In stands in the forefront among south China's provinces in the number of sheep, oxen, and horses.

Livestock in the province total 51.57 million head, 16.4 percent of them large livestock animals, and 83.6 percent small livestock animals. Among large livestock animals, water buffalo and oxen total 65.1 percent; yaks and pien niu [the offspring of a bull and a female yak] total 31.2 percent, and horses, donkeys, and mules are very few, totaling only 3.7 percent. Small livestock animals consist of hogs for the most part, which account for 79.8 percent of the total, and goats and sheep together total 20.2 percent. More than 80 percent of hogs and water buffalo are concentrated in the eastern part of the Sichuan basin, while more than 80 percent of sheep, horses, mules, and donkeys are found in the Garze Zang, Aba Zang, and Liangshan Yi Autonomous Prefectures in the west. Virtually all of the yaks and pien niu are found in Garze Zang and Aba Zang Autonomous Prefectures. Most of the oxen are found in the mountains surrounding the basin and in the hill region of the basin. Goats are found mostly in the mountains surrounding the basin, in Xichang Prefecture, and in the southeastern parts of Garze Zang and Aba Zang Autonomous Prefectures.

Differences in the main areas of occurrence of the various kinds of livestock animals has brought about a very great diversity in the structure of animal husbandry in individual areas. In the Sichuan basin, hogs hold a predominant position in animal husbandry (accounting for more than 85 percent of all livestock). Next come water buffalo and oxen, with very few other kinds of livestock. Hogs predominate in the mountains surrounding the basin, followed by oxen and goats. In Liangshan Prefecture, sheep and hogs are equally important. In Xichang Prefecture, on the other hand, goats and hogs are of equal importance. In southeastern Garze Zang and Aba Zang Autonomous Prefectures, goats and sheep, and yaks and pien niu predominate. In northwestern Garze Zang and Aba Zang Prefectures, on the other hand, yaks, pien niu, and sheep predominate overwhelmingly.

B. Diverse Livestock Feeding Methods and Generally Poor Operating Methods

In pastoral regions, grazing is the main way of feeding livestock, mostly moving from one grazing area to another with the seasons. Since the climate is cold, the land vast, the population sparse, and the numbers of livestock large, the burden on the work force is fairly great, particularly during July, August, and September during the busy season in livestock production when there are usually very great conflicts in the use and placement of the work force. Animal husbandry operations are nonintensive; capital construction of the grasslands is very poor with the emphasis on use to the neglect of care, all grazing and no nurture, which has led to a regression of meadowlands, one-third of all meadowlands having become either infested with insect pests and rodents or having become swampy, and 70 or 80 percent of livestock having no shelter. During winter and spring when the grass is withered, no supplementary fodder is given the livestock and ability to withstand disaster is very weak. A general situation exists of "plenty to eat in summer, fat in the fall, skinny in the winter, and dead in the spring." Basically, livestock are raised by living off the land.

In farming regions, hogs are generally fed in pens while cattle both graze and are fed in sheds. Sheep and goats depend mostly on grazing. The level of care is generally higher than in pastoral regions. Almost every livestock animal has a permanent pen and sources of fodder are also more diversified.

In places where farming and animal husbandry intermingle, feeding and care methods are generally between those of farming regions and pastoral regions. They are transitional in nature either being closer to those of farming regions or pastoral regions, animal husbandry being determined by location and the status of local grassland fodder.

C. Further Improvement Needed in Quantity and Quality of Livestock Products

The speed of livestock development in Sichuan is still not fast enough. Statistics for the period 1949-1974 show an average annual rate of increase of 4.9 percent for hogs, 5.7 percent for goats, 4.6 percent for sheep, and 2.1 percent for large livestock animals (including only 1.1 percent for water buffalo and oxen), which is far below the national average 6.1 percent speed of growth for all livestock.

Despite the various fine breeds of livestock available in the eastern part of the basin and in the mountains surrounding the basin, breeding has not been done well so the percentage of fine breeds is not high. The body weight and meat output of some livestock has even declined. Most of the livestock on the western plateau are stock breeds well suited to the nonintensive feeding and care conditions, but production capacity is low.

Despite year by year increases in the numbers of hogs in Sichuan since liberation, the slaughter rate for fattened hogs has hovered around 55 percent during the past 10-odd years (61.2 percent in 1965). In most years, the average gross weight of hogs purchased has been 140 to 150 jin, and it fell as low as approximately 130 jin in some years. As a result both slaughter rate and gross procurement weight are lower in Sichuan than the average for the country as a whole, so shipments outside the province of pork and volume of exports have both been greatly affected. Sichuan's Tibetan-strain sheep produce between 0.5 and 2 jin of wool per sheep per year, which is only one-half the national average. Improved varieties of sheep total 14 percent of the total number, while the national average is 21 percent. The wool produced can satisfy only 25 percent of the raw materials needs of woolen textile industries in the province; there is an extreme discrepancy between supply and demand. The number of goats in the province exceeded the all-time high for the first time only in 1972, while goatskin procurement was only 55 percent of the all-time high. Since 1962, more plow oxen have been shipped out of the province than into it; nevertheless, approximately 30,000 head are annually transferred between one region and another within the province at a great cost in manpower, material, and financial resources. Both milk and meet output from pien niu and yaks is very low, only a miniscule amount being provided over and above consumption by herdsmen themselves. The province has to bring in more than 100,000 jin of milk powder and approximately 1 million jin of beef annually.

As the standard of living gradually rises, and with the rapid development of both production and foreign trade, Sichuan's animal husbandry must develop more rapidly in order to be able to provide livestock products in larger quantities and of better quality to satisfy the needs of all.

2. Current Status of Production and Avenues for Development of Major Livestock Animals

A. Hogs

Hogs are Sichuan Province's most important livestock animal, account for two-thirds of all livestock animals. In converted figures, they account for one-half of all livestock animals. (Footnote 1) (One large livestock animal is equivalent to five sheep or goats and to 3.3 hogs.) In Sichuan Province, every peasant household raises an average of 1.7 hogs or 0.43 hogs per capita and 0.37 hogs per mu of land (figured in terms of the yearend number in inventory), all of which are higher than the national average. In the plains regions at the western end of the basin, in particular, where the number raised is higher than elsewhere, are located 18 of the 20 counties in which there is either 1 hog per capita or 1 hog per mu (figured in terms of numbers

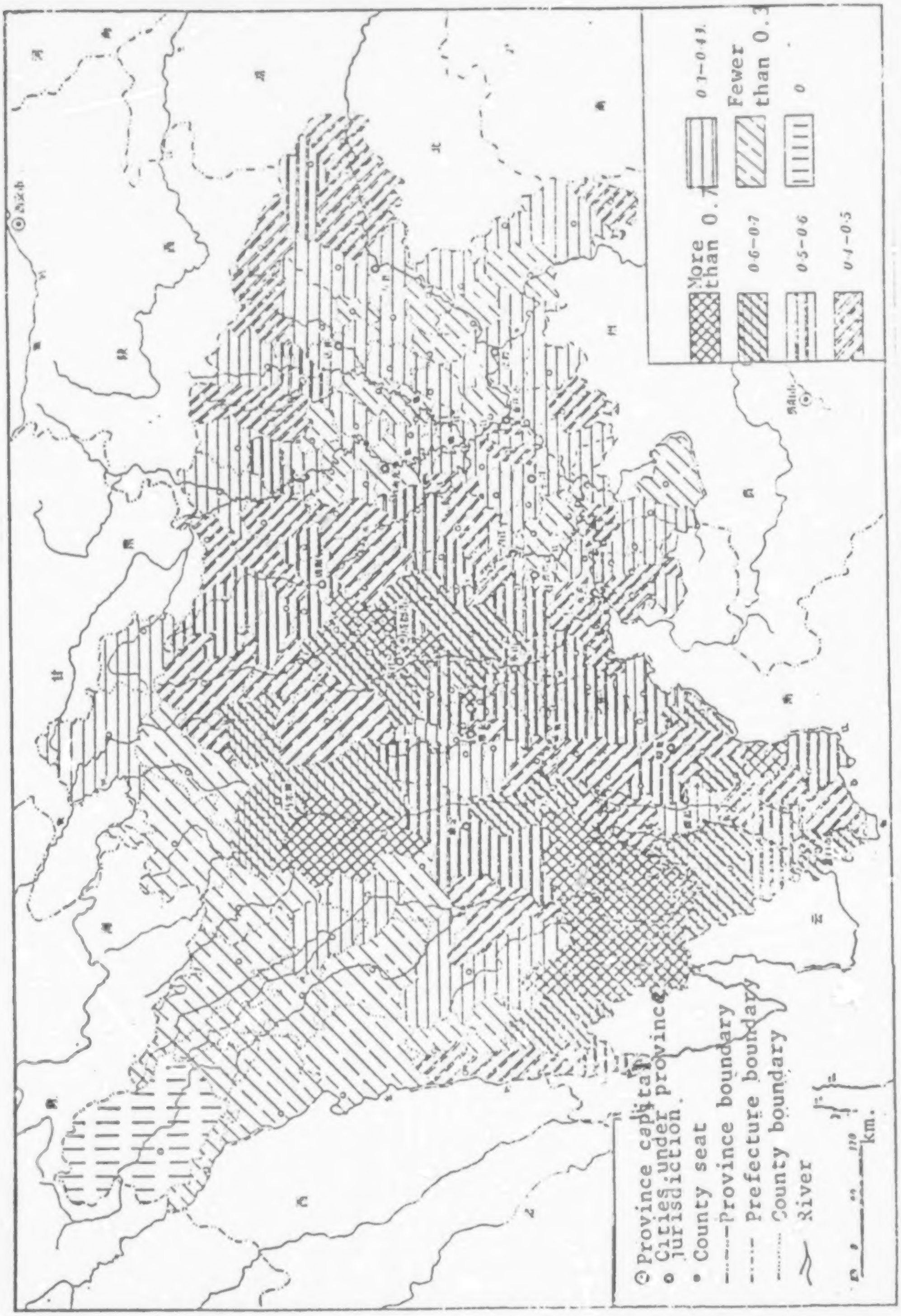

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
More than 0.7
0.6–0.7
0.5–0.6
0.4–0.5
0.3–0.4
Fewer than 0.3
0

Figure 26. Number of Hogs Per Capita of Agricultural Population in Sichuan Province

raised). However, Sichuan's hog-raising industry is still a long way from being able to meet the needs for its national economic development and a great gap exists between hog production in Sichuan Province and that of advanced provinces and municipalities.

Currently, collectively-raised hogs account for only approximately 15 percent of the total number of hogs in the province, and collectively-raised sows account for approximately 35 percent of all sows. In some counties, the ratio of collectively-raised hogs is less than 5 percent or even only 1 to 2 percent. Even in counties that are advanced in the raising of hogs, the percentage of collectively raised hogs in communes and brigades is very low. Experience has shown that increased collective hog raising helps control sources of supply, stabilizes market prices for shoats, and gives priority to satisfying the needs of needy households; it helps collectives maintain control over sources of fertilizer, lowers agricultural production costs, makes the collective economy robust, and increases commune members' earnings; it helps provide the country with more commodity hogs, assists in the building of socialism and in the planning of city and countryside market supply; and it helps promote fine breeds and popularize advanced experiences in scientific hog raising. Consequently, all jurisdictions should resolutely carry out the Central Committee's policy of "actively develop collective hog raising and continue to encourage commune members to raise hogs." They should strive to run collective hog farms well, increase in a planned way the percentage of collectively-raised hogs, and give particular attention to the raising of sows by collectives so that collectives can breed hogs to raise themselves, brigades can reproduce hogs for brigades to raise, and brigades can reproduce hogs for raising by households. In suburban areas, mechanized hog farms of a certain size should be operated in a planned way.

Fodder is the foundation for consolidation and development of the hog-raising industry. A shortage of fodder has been a main reason for the downturn in the numbers of hogs and the decline in quality during the past several years. The ways that the small-scale agricultural economy formerly used to solve the fodder problem are completely unsuited to today's needs in the large-scale raising of hogs. Thus, fodder production should be made a part of socialist agricultural plans. In order to insure a steady supply of fodder, every commune and brigade should figure out its total needs for fodder based on the number of hogs it plans to raise, concentrating mostly on green feed appropriately augmented by concentrated and coarse feeds. They should do this in conjunction with overall planning, starting with dedicating land to the growing of needed fodder but also making fullest use of agricultural sideline products and wild-growing fodder and actively promoting carbohydrate feed, expanding the area of green feed crops such as Chinese trumpet creeper, Chinese milk vetch, broad bean stalks, and radishes through increased plantings, companion cropping, and intercropping. They should particularly advocate use of pits, ponds, and dammed sites and paddy fields for the growing of fodder that grows in water such as water cabbage, water peanuts [Alternanthera philoxeroides], water hyacinths, and red azolla. This is an important way in which to solve the competition between grain and fodder crops for land. As a result of having taken the above-mentioned actions, some counties, communes, and brigades advanced in the raising of hogs have not only made fodder for collectively owned hogs a part of their agricultural plans, but they have additionally been able to supply part of the need of private commune members for fodder to raise hogs. In addition, in order to meet needs for mechanized hog raising, gradual development of a feed industry and establishment of feed companies is necessary.

During the past several years, four contagious diseases, namely, hog cholera, swine herpes, swine erysipelas, and swine plague, have spread widely throughout the province causing severe damage and posing a very great threat to development of the hog-raising industry. Thus, a firm grip must be taken on the establishment and improvement of livestock veterinary medicine organizations at all levels to form a network for the prevention and control of infectious livestock diseases and for the promotion of a cooperation effort to prevent and control livestock diseases, steadfast efforts being devoted to comprehensive measures, with mass prevention and mass treatment being emphasized, and efforts being made to bring down the hog death rate to 5 percent below the all-time low.

Hog breeding and feeding techniques in the province today remain fairly low. In order to meet needs for development of the hog-raising industry, efforts must be made to use local sows and fine breed boars for breeding, to crossbreed fat hogs in one generation, and to use artificial insemination in breeding.

B. Water Buffalo and Oxen

Water buffalo and oxen are important draft animals in the Sichuan agricultural region accounting for more than 98 percent of all draft animals. Water buffalo are found largely on the Chengdu plain and in the paddy-growing areas of the Chang Jiang, Min Jiang, Fu Jiang, Tuo Jiang, and Jialing Jiang basins. Oxen are found largely in the mountains surrounding the basin, in the hill region of the basin, and in Xichang and Liangshan Prefectures.

There are approximately 3 million head each of water buffalo and oxen. The fine breeds of water buffalo are the "Fuling water buffalo," the "Qijiang water buffalo," and the "Dechang water buffalo." All are characterized by large bodies, rapid growth and development, strong pulling power, and ability to tolerate hard labor. The fine breeds of oxen are "xuanhan oxen" and "Rongjing oxen," which have the common characteristic of strong pulling power and ability to stand hard work for a long time.

Today, each draft animal in the province is responsible for plowing an average of 26.7 mu of land and for sowing 46.3 mu, but the amounts vary greatly from one place to another. In some counties, communes, and brigades, the animals carry a heavy load, such as in Jintang, Jianyang, and Ziyang Counties where they plow between 60 and 70 mu and are responsible for sowing more than 100 mu. The overall situation in surplus and shortage of draft animals in the more than 150 counties in the province's eastern agricultural region was as follows: Approximately 60 counties had a surplus of buffalo and oxen, and approximately 50 counties had a shortage. Counties self-sufficient in supply numbered 40. In view of this situation, plus the inability to mechanize across the board very quickly because of limiting factors, conscious efforts must be made to surmount the mistaken notion that development of plow oxen and water buffalo is useless." It will remain necessary to use draft water buffalo and oxen for a long time to come, and to devote equal attention to the raising of beef cattle and draft cattle. All jurisdictions should diligently implement a program of "self-breeding and self-raising," institute a policy that provides rewards, and spread experiences in "equal care and use" or combining care and use. Counties, communes, and brigades that lack water buffalo and oxen should do all possible to breed plow animals, to raise the self-sufficiency rate, to generally use fine breeds in breeding, and to try to improve quality. Ideally, each production brigade should have one stud water buffalo or ox, and each production team should have a minimum of two female animals that are able to reproduce. Counties with surplus animals having the conditions should breed more plow animals (particularly fine breeds) in order to supply shortage counties.

Worth noting is that during the past more than 10 years the quality of Sichuan's plow buffalo and oxen has gradually declined. Statistics from a general survey conducted during August 1974 at Mingyu Commune in Fuling County, one of the areas producing "Fuling water buffalo," show that mature bulls and cows 6 years old or older were, respectively, 1.8 and 4.6 centimeters shorter than in 1959. Equal attention will have to be devoted in the future to a policy of improvements through selective breeding and through crossbreeding. Simultaneous with the revival and improvement of existing fine-breed cattle should be major efforts on crossbreeding. Experiences in Anyue and Tongnan Counties show that hybrid water buffalo produced through the crossbreeding of imported Murrah water buffalo (the work king of water buffalo) and local water buffalo resulted in animals that were tall, well proportioned, grew and developed fast, were very adaptable, and had strong pulling power for marked improvement of the quality of local water buffalo.

C. Goats and Sheep

Sichuan has 5.92 million goats or 63 percent of all goats and sheep combined. Goats are distributed over a wide area, most of them in Xichang Prefecture, in the eastern part of the basin, and in the mountain area at the northern end of the basin. Hill regions also have a substantial number. More than 11 counties have 100,000 or more goats each for a total of 1.73 million, or 27.3 percent, of the province's total goat population. Clearly, they are fairly concentrated.

Goats are rather strongly adaptable. They withstand cold and heat well, are adept at climbing on craggy terrain, eat a wide range of food, and may be fed with a wide variety of weeds and wild fodder (including small shrubs). They do not require concentrated feeds as a supplement in their diets. They mature and breed rapidly, and require little labor to care for them. The masses use them mostly for their meat. Sichuan goatskin has been a traditional export commodity that enjoys a very high reputation internationally and earns very high foreign exchange. Supply has been unable to meet demand for many years. Thus, vigorous efforts will have to be made, as circumstances in individual places permit, to produce more.

A fine breed of Sichuan goat is the "Tongyang" (also known as the Chengdu Mayang) that is valuable for its meat, its milk, and its skin. Quality of its meat is quite good. It does not have a goat smell; it produces a substantial amount of milk; its skin is fine and tightly textured, has high tensile strength, and is highly regarded in international markets. More of these goats should be produced. After more than 20 years of efforts, the Yuandingzi livestock farm in Nanjiang County has scored initial success in the breeding of "Nanjiang oxen" that are useful for their meat, their milk, and their hides. They are tall animals with tasty flesh and fine, supple hide having high tensile strength. Efforts should be made to popularize this breed. In addition, mayang goats from Fengjie and "banjiao goats" from Wanyuan are also rather fine breeds.

Future efforts should center around active development of goat herds both among collectives and communes. The operation of collective goat farms is an important way to increase goat production. In mountain regions, in particular, potential is very great for development of commune, brigade, or jointly operated goat farms. Places having requisite conditions should select relatively inaccessible cols where fodder is abundant for the establishment of permanent grazing bases for goats, placing them under collective care in order to reduce or avoid damage to forest trees. It is difficult to control random grazing of goats raised by individual commune members; thus tethering or raising in pens is preferable. In hill regions lacking large tracts of grassy hillsides where conditions do not permit grazing in herds, even collectively-raised goats should be raised in pens.

Sichuan has 3.52 million sheep, most of them on the western plateau and in high and cold areas at 2,500 meters or more above sea level in Liangshan Yi Autonomous Prefecture and in Xichang County. This includes 1.1 million or more in Zoige and Serxu Counties, and more than 100,000 in each of the five counties of Hongyuan, Aba, Zhaojue, Sertar, and Yanyuan for a total of 1,805,000 in the seven counties or 51.4 percent of all sheep in the province. They are found in a more restricted area than goats.

Sichuan has two types of sheep: grassland sheep and mountain valley sheep, both of which are Tibetan sheep breeds. The grassland sheep are found on the northern part of the plateau. They tolerate coarse fodder, hunger, fatten easily, are strongly resistant to disease, have a strong herd instinct, and adapt to a high and cold environment. Mature sheep are shorn once each year, producing between 1 and 2 jin of wool. Wool quality is fairly coarse; most wool-producing parts of their body grow wool fibers measuring from 8 to 15 cm in length in a mixture for the most part. Each ram weighs about 65 kg and each ewe about 55 kg. Slaughter rate is approximately 40 percent. Valley sheep are found in the southern part of the plateau and in Liangshan Yi and Xichang Prefectures. They are smaller than the grassland sheep and their wool is fine and short. Most of their hair is 4 to 8 cm long. They are

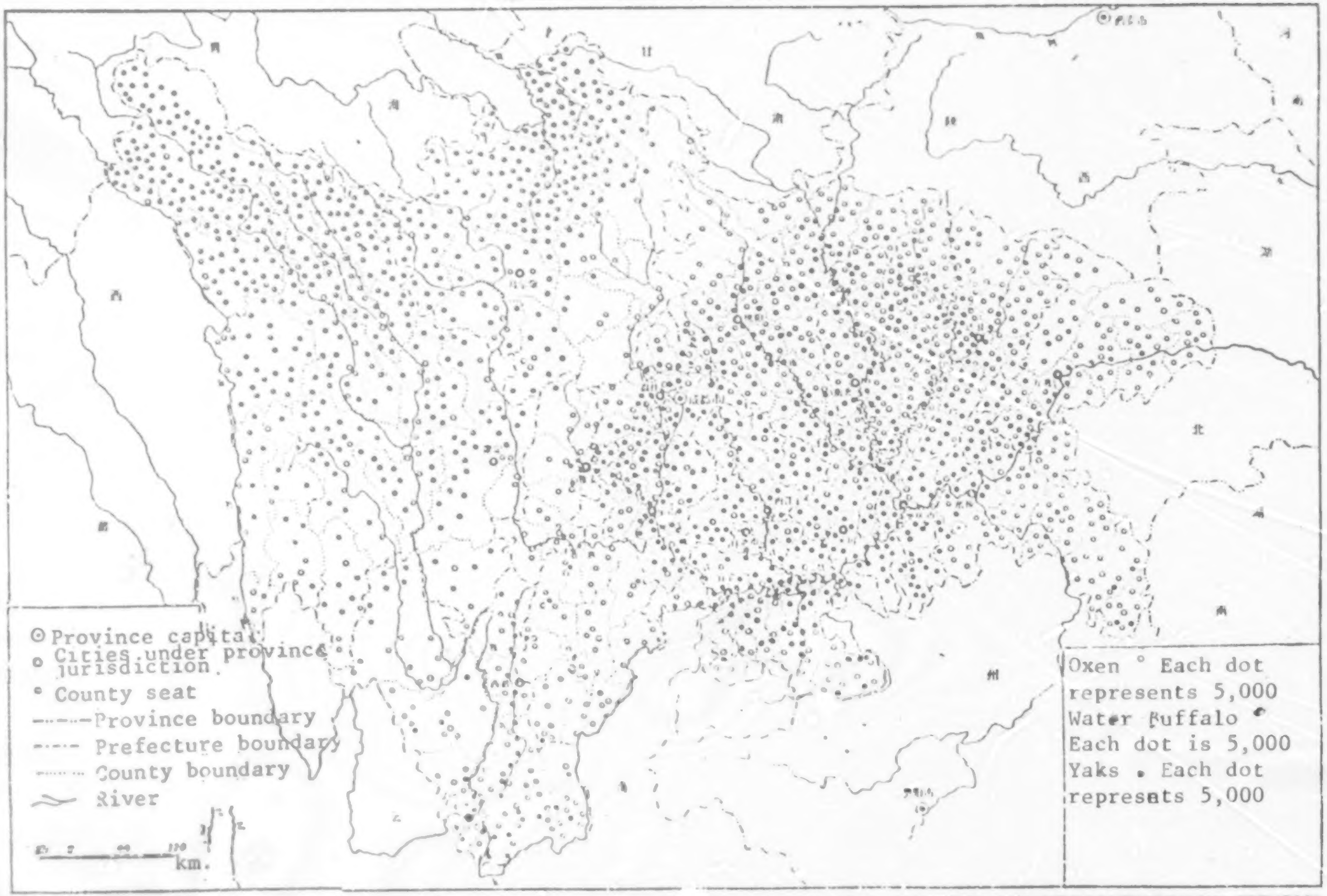

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
Oxen ° Each dot represents 5,000
Water Buffalo • Each dot is 5,000
Yaks . Each dot represents 5,000

Figure 27. Distribution of Oxen, Water Buffalo, and Yaks in Sichuan Province

shorn between one and three times annually producing between 0.5 and 1.5 jin of wool annually. Mature sheep put on weight fast. Slaughter rate is higher than for grassland sheep at approximately 50 percent.

Since liberation, Sichuan Province has introduced different kinds of fine-wool and semifine wool breeds from elsewhere that have gone far to improve the Tibetan sheep breeds. Nevertheless, they have not been able to satisfy the needs of the wool textile industry in terms of either quantity or quality. A decision has been made on the basis of national needs and conditions in the province to move toward improving sheep to produce 48 to 50 count (coarse) semifine wool. For the future, strong attention will have to be given to increasing the numbers of sheep while simultaneously devoting efforts to improving breeds and building up the grasslands. This will be of extremely great importance in advanced industrial and agricultural production, in consolidating the alliance between industry and agriculture, in strengthening bonds among nationalities, in developing the economy of nationalities, and in increasing exports. (Please see Chapter 14 for details.)

3. Pattern of Bases for Livestock Breeding and Livestock Product Commodities

C. Hog-Raising Bases

"Neijiang hogs" and "Rongchang hogs" hold first and second position among the country's nine fine-breed hogs. "Chenghua hogs" are also a fine local breed in Sichuan. "Neijiang hogs" have large bodies, tolerate coarse fodder, are strongly adaptable, grow rapidly , have high fecundity, and are readily bred with other hog varieties. "Rongchang hogs" have medium-size bodies, tolerate coarse fodder, have high fecundity, are slaughtered in large numbers, and have outstanding quality fibers. "Chenghua hogs" have small bodies, tolerate coarse fodder, and highly adaptable, fatten and mature readily, and have a delicate flesh.

Sichuan has the job of providing the whole country with "Neijiang hog" and Rongchang hog" breeding stock. At the same time, it also has to satisfy as best it can the whole province's needs for "Neijiang hog" and "Rongchang hog" breeding stock, as well as the western Sichuan basin's needs for "Chenghua hog" breeding stock. However, there are only approximately 100,000 head of "Neijiang breeding hogs" and "Rongchang breeding hogs" in the province, and only 70,000 head of "Chenghua breeding hogs," which is far from being able to satisfy demand from inside and outside the province. By way of making greater use of the role of these fine breeds, not only should efforts be made to increase their numbers, but also to improve their quality, and to increase the slaughter rate and the weight of fattened hogs through shortening the time it takes to fatten them.

In view of the hog-raising bases already in existence and convenience in shipping breeding hogs elsewhere, Neijiang Prefecture should be made into a base for "Neijiang breeding hogs." Its eight prefectural and county (or city) hog stud farms and hog farms, Neijiang City, Neijiang County and the Yinshan, Shuinan and Guide districts of Zizhong County, plus the Wuhuang District of Ziyang County should be the center of the base. The southwestern part of

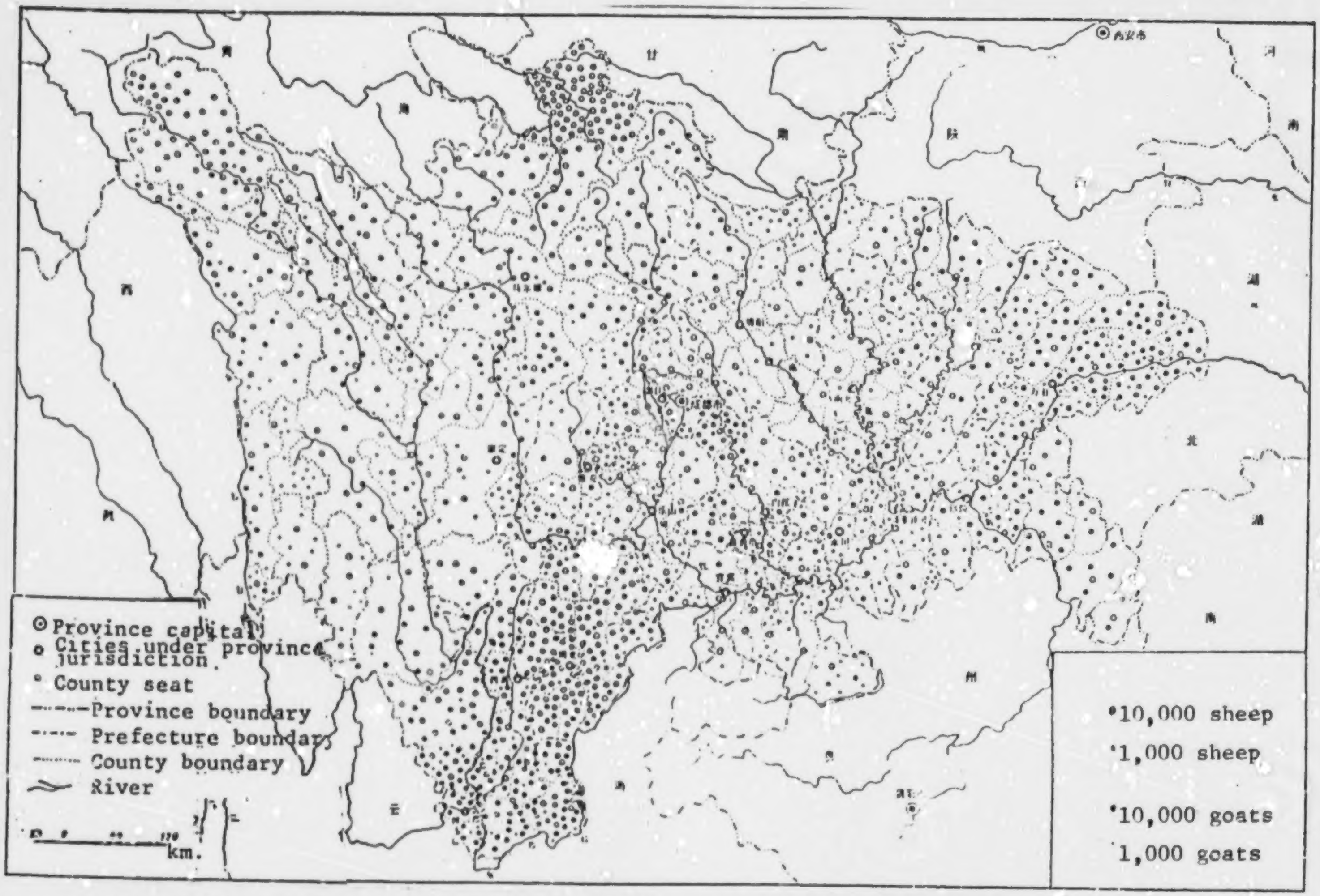

Province capital
Cities under province jurisdiction
County seat
Province boundary
Prefecture boundary
County boundary
River
km.
10,000 sheep
1,000 sheep
10,000 goats
1,000 goats

Figure 28. Map Showing Distribution of Sheep and Goats in Sichuan Province

Jiangjin Prefecture and the southeastern part of Yibin Prefecture should be a "Rongchang hog" breeding base centering around Rongchang, Longchang, Yongchuan, and Luxian Counties. The suburbs of Chengdu City and the southeastern part of Wenjiang Prefecture should be a breeding base for "Chenghua hogs." This base should center around Chengdu, Wenjiang, Pixian, Shuangliu, and Xindu Counties.

In the process of building hog-breeding bases, emphasis should be placed on increasing the proportion of state farm and collective breeding, on improving the availability of fodder, on changing the stage-by-stage feeding method (fattening of mature hogs), changing the tendency to emphasize the raising of sows rather than boars, overemphasis on the numbers of hogs, active development of artificial insemination, good selective breeding of reserve hogs and getting rid of substandard hogs in a planned effort to build up a nucleus of hog herds.

B. Commodity Hog Bases

As the building of socialism progresses and the standard of living rises, the amount of demand for pork increases daily. In order to meet this situation, it is necessary to build a number of mechanized and semimechanized large hog-raising enterprises in large and medium-size cities and at meat-processing plants. In addition, it is necessary to select a few counties that have ample fodder and a fairly good foundation for hog raising to act as commodity hog base counties and key points.

Some units concerned have already done preliminary planning to make 28 counties in the province into commodity hog base counties for the whole province. The counties are: Luxian, Jiangjin, Hechuan, Tongnan, Bazhong, Pingchang, Guang`an, Nanbu, Suining, Shehong, Pengxi, Ziyang, Jianyang, Anyue, Renshou, Meishan, Leshan, Pengxian, Guanghan, Xindu, Shifang, Chongqing, Pixian, Qionglai, Guanxian, Deyang, Mianzhu, and Mianyang. In 1977, these counties raised 15.7 million hogs and had 10.47 million head in inventory at the end of the year, or more than 28 percent of the total for the whole province. They had a 50-percent slaughter rate and provided the country with 248 million jin of commodity pork for a fairly substantial contribution.

The aforementioned 28 counties may be divided into three categories. Category 1 are high-yield grain counties (numbering 13 in all), all of them located on the plain in the western part of the basin and virtually forming a single tract. Not only do these counties have an ample grain ration, but they also plant the most winter green manure and livestock fodder crops. Both the green feed and the enriched feed required to raise hogs are fairly abundant. Hogs number 0.65 head per capita for first place in the whole province. (Footnote 2) (Figured on the number of head in inventory at year's end. The same applies hereinafter.) In the second category are counties that grow grain and spring-planted cash crops (numbering 10 in all). They are located virtually in a continuous tract in the hill region of the basin, and they grow mostly cotton as a cash crop. A very large percentage of dryland crops, such as sweet potatoes, corn, and broad beans, are intercropped with grain. After the stalks and stems from these crops have been chopped up, they make fine coarse fodder.

Thus conditions for hog raising are fairly good and the number raised is fairly high at 0.52 head per capita. In the third category are hill region counties in which the growing of grain in paddyfields (mostly winter paddyfields) predominates, but where grain rations are short and neither concentrated nor coarse fees are as plentiful as in the foregoing two categories. Hog raising is at a fairly low level of 0.33 head per capita, which is lower than the average for the province as a whole. It is only because they are all large counties that the number of hogs in inventory is higher than in smaller counties.. It will be necessary to use the large numbers of winter paddyfields for the large-scale growing of red azolla as a basis for rapid improvement in the amount of fodder available to improve the level of hog raising.

C. Commodity Beef Bases

Nearly half of the oxen in Sichuan are concentrated in the 33 counties of the northern and eastern part of the province (Daxian, Xuanhan, Wanyuan, Tongjiang, Nanjiang, Bazhong, Pingchang, Quxian, Wanxian, Yunyang, Fengjie, Wushan, Zhongxian, Fengdu, Shizhu, Wulong, Pengshui, Qianjiang, Youyang, Xiushan, Yilong, Yingshan, Langzhong, Cangxi, Mianyang, Santai, Jiangyou, Zitong, Jiange, Wangcang, Guangyuan, Qingchuan, and Pingwu Counties). Most are mountain region counties and the remainder are counties with low mountains or high hills in which the terrain is relatively high where the climate is agreeable, being neither severely cold nor scorching hot (except for the river valleys in a few counties), where the turfed slope area is fairly large, and the basis for livestock raising is also good. Beef-processing plants have been built in Daxian, Nanjiang, Tongjiang, and Wuxian, thus conditions there are better than elsewhere for development of commodity beef, and plans call for making them into one of the country's 14 beef bases. First, it will be necessary to stress the work being done in 10 pilot project counties, namely, Daxian, Xuanhan, Wanyuan, Tongjiang, Nanjiang, Bazhong, Guangyuan, Jiange, Santai, Xintong, and Qianjiang and gradually import, little by little, Charolais, Simmental, and Holstein cattle for crossbreeding with local oxen to improve the breed the better to meet demand for beef.

D. Plow Animal Bases

Since mechanization of wetlands is more difficult than mechanization of drylands, particularly on small terraced fields in hill regions, full mechanization of plowing will require a process. Consequently, for some time to come, serious attention will have to be given to the reproduction of water buffalo.

The authorities concerned have already designated Hongya, Qijiang. Yibin, Shuyong, Dianjiang, Dechang, Daxian, Pingchang, Mingshan, Anyue, Muchuan, and Bazhong counties as plow oxen (or water buffalo) reproduction bases. Though these 12 counties have only 16 percent of the total number of water buffalo in the province, they all have a surplus of water buffalo, and they bear the main responsibility for providing the whole province with plow animals. Breeding and feeding conditions in these counties is better than elsewhere, and they should be further consolidated and improved. Qijiang, Dechang and Dianjiang counties should breed mostly local breeds of "Qijiang oxen"" "Dechang water buffalo" and "Fuling water buffalo," introducing outside blood in a planned way. The other counties should crossbreed Murrah water buffalo and niliruifei [1441 6849 3843 5481] buffalo with local breeds, developing in the direction of animals that can be used to plow, provide milk, and be used for meat.

In the process of building bases, old, weak, and crippled animals that have lost their ability to plow and to reproduce should be culled in a planned way. At the same time, the breeding and care of cows and bulls should be given main emphasis to build up and maintain a reserve of a certain number of cows of proper age and selection of a number of bulls consistent with needs for breeding. Efforts should be directed to full breeding so that all eligible cows are kept pregnant and bulls and cows should be cared for separately to prevent too early breeding, random couplings, and unplanned breeding.

E. Animal Husbandry Bases for All-Round Production of Hair, Wool, Hides, Meat, and Milk

Garze Zang, Aba Zang and Liangshan Yi Autonomous Prefectures as well as Xichang Prefecture in western Sichuan have virtually all the sheep, yaks, and pien niu in the province. They also have approximately 160 million mu of meadowlands suitable for grazing, making them a vast land for development of animal husbandry. As a result of the primitive livestock breeds and poor maintenance of the grasslands, output and quality of livestock products today is not very high, and far from satisfying the province's needs for hair, wool, hides, meat, and milk. In order to change this situation as rapidly as possible, the job of building bases will have to be done.

(1) The Aba semi-fine-wool base

This base includes Zoige, Hongyuan and Aba counties in Aba Zang Autonomous Prefecture where sheep number more than 91,000, or 26 percent of the total for the whole province. This is the place of greatest sheep concentration in Sichuan. Today most of them are still Tibetan-breed grassland sheep, where wool is not suitable for use by woolen textile industries. Since liberation, this area has imported some fine-wool and semi-fine-wool sheep for crossbreeding with the Tibetan sheep. Now it appears that the Tibetan sheep that have been improved by fine wool sheep (Xinjiang Merino sheep X Tibetan sheep) have virtually the identical quality of wool with a certain amount of coarse-wool sheep (border region Leicester sheep) blood lines mixed in. Additional breeding steps will be necessary and then within a certain period of time there will be the prospect of breeding a new semi-fine-wool breed sheep that provides both wool and meat. (Please see Chapter 14 for details.)

(2) The Southwest Sichuan fine-wool sheep base

This base includes all of Liangshan Yi Autonomous Prefecture plus Huidong and Yanyuan counties in Xichang Prefecture, which has a grassland area of more than 10 million mu and 27 percent of all the sheep in the province, 10 percent of which are improved-breed sheep, the largest number in the province at the present time. This is the region in which greatest results have been obtained from improved sheep; nevertheless the Tibetan-breed valley type sheep remain an overwhelming majority. In the future, mostly now available fine-wool rams and semi-fine-wool Romney rams should be crossbred and re-crossbred with local breed ewes to develop semi-fine-wool sheep that provide both wool and meat. (For details, please see Chapter 12.)

(3) The northwestern Sichuan sheep and yak base

Tibetan-breed grassland sheep are fitted for high and cold environments. Their wool is coarse and long, and though it does not meet the requirements of the woolen textile industry, it is a first-rate material for the manufacture of rugs and enjoys a very high reputation in foreign markets. The flesh of grassland sheep is tender and without a mutton taste. It is much enjoyed by the masses. Yaks are also very suited to high and cold environments, and they find wide use not only as draft animals, but also in providing milk, meat, and hair. Yak hair is fine for the most part. It is tough and tensile, has luster and may be use in making rugs and tents. As the national economy develops, the need for cattle and sheep that produce fiber for rugs increases steadily, so these two kinds of livestock breeds must be retailed. However, the quantity of the fiber and milk they produce, and their slaughter rates are low. They will have to be selectively improved steadily in the future.

In the northern and central part of Garze Zang Autonomous Prefecture (in Serxu, Sertar, Dengke, Dege, Baiyu, Garze, Luhuo, Xinlong, and Litang counties), the topography is high and cold; the climate is rather awful; supplemental fodder for livestock is difficult to obtain during winter and spring; the area is cut off from transportation; and conditions for improving sheep are poor. There are also large number of grassland sheep and yaks here (24 and 51 percent, respectively, of all the sheep and yaks in the whole province) and a lot of wool and hair are produced, which suits the area to be a sheep and yak base primarily for the production of fiber for use in making blankets.

F. Goat bases

The whole body of a goat is a treasure. Goat meat is is in short supply in markets, and goat intestine casings and goatskins are important export items. Goat milk is a very good nutritional food. For these reasons, vigorous efforts to raise goats continues to be a requirement for development of the national economy. Furthermore, establishment of corresponding bases is an indispensably important method for raising goats.

The country is currently extremely attentive to the building of goat bases, and particularly to the collective raising of goats, to which major material and financial support has been given so that the percentage of collectively raised goats will steadily rise. This is of major significance in the consolidation of the collective economy, in gaining control over the sources of supply of goats, in protecting does, and in propagating fine breeds to provide more commodity goats to the country.

The following several bases have been preliminarily decided on the basis of the existing foundation for raising goats in various places, the availability of fodder, and the availability of transportation:

(1) The eastern Sichuan goat base

This includes Wanxian, Yunyang, Fengjie, Wushan, Wuxi, Kaixian, Fengdu, Wulong, Pengshui, Xiyang, Xuanhan, Tongjiang, and Nanjiang for a total of 13 counties in all with a total of more than 1.16 million goats, or 20 percent of the total number in the province. These are all mountain region counties that virtually form a single contiguous area in which the turfed slope and brush area is fairly large, fodder grasses ample, and the foundation for goat raising good as well. "Fengjie ma goats," "Nanjiang yellow goats," and "Wanyuan banjiao goats" are all local breeds from which the masses have selectively bred fine breeds over a long period of time. In addition, water and land transportation is readily available in this area. Thus, it has fairly good conditions to make it a base.

The southwestern Sichuan goat base

This area includes Huili, Huidong, Ningnan, Miyi, Xichang, Dechang, Yanbian, Yanyuan, Zhaojue, Leibo, Xide, and Meigu for a total of 12 counties that have a total of 1.24 million goats, or 21 percent of the total for the province, or slightly more than the base next above. This is the region of Sichuan with the highest concentration of goats. The grasslands here are vast, natural fodder abundant, and the foundation for raising goats fairly good. In most counties, transportation is readily available, and commodity rates for both goat meat and goatskins are fairly high.

In addition, production bases for milk goat dairy products can be established in Maowen, Wenchuan, Dayi, Qionglai, Jianyang, Ya'an, Hongya, Yuexi, Nanjiang, and Luxian Counties. These would include the "tong goat" ("Chengdu mayang") production areas of Maowen and Wenchuan Counties plus the counties near Chengdu, which should mostly purify and rejuvenate native breeds, placing the emphasis on development of breeds that produce milk, meat, and hides. The other counties should concentrate on planned introduction of fine-breed milk goats (such as Saanen and Toggenburg), emphasizing increase in milk output.

Attached Tables

Master Table 1. Natural Survey of All Agricultural Regions in Sichuan

Particular item		Zone I	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VIII	Zone IX
Number of counties and cities		29	30	26	19	32	14	10	19	16
Total Land Area	Square Kilometers	2.81	5.33	3.83	4.02	9.19	3.13	3.43	11.55	13.48
	Percentage of Province	4.95	9.39	6.75	7.03	16.17	5.52	6.04	20.35	23.75
Average height above sea level (meters)		400—750	100—700	300—700	300—900	600—2,000	800—3,000	1,000—3,000	2,000—4,000	2,300—4,500
Terrain characteristics		Mostly flatland. Mountains next; some hills	Mostly hills. Some low mountains & flat-land	Mostly hills. Some low mountains. Little flatland	Mostly low mts & hills. Little flatland	Mostly low mts plus hills & medium mts	Mostly medium mts & plains. Some low mts	Mostly medium mts & broad valleys. Some basins & high mts	Mostly high mts & gorges plus plateau basins & high mts	Mostly plateau. Some broad valleys and extremely high mountains
Average temperature (°C)		16—17.5	17—18	17.5—18.5	17—18.5	15—17	10—15	15—20	7—14	0—6
Cumulative temperatures (°C) when temperature is 10° C or above		4,800—5,200	5,300—5,700	5,300—6,000	5,000—5,800	4,500—5,500	3,000—5,000	4,500—6,800	2,000—4,000	400—1,500
Frost-free period		280—300	290—320	300—340	270—330	250—280	200—300	250—300	180—240	<120
Annual precipitation (mm)		950—1,200	900—1,000	1,000—1,200	1,000—1,200	1,100—1,500	800—1,100	800—1,100	500—800	500—700
Percent of annual precipitation between May through September		80—83	70—77	66—70	60—70	70—74	70—80	80—89	80—90	80—85

Note: Temperatures and precipitation in zones I through IX apply to basal areas

Master Table 2. Basic Situation in All Agricultural Regions of Sichuan Province

	Whole Province	Zone I	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VIII	Zone IX
Population Density (persons per square kilometer)	159	474	455	482	415	136	55	67	8	3
Reclamation Index (%)	11.78	33.69	32.00	33.55	26.47	12.49	7.00	6.30	1.03	0.48
Cultivated land per capita (mu)	1.17	1.22	1.09	1.00	1.07	1.39	1.88	1.51	2.29	2.30
Cultivated land per capita of workforce (mu)	2.95	2.96	2.68	2.52	2.75	3.85	4.57	3.81	5.14	4.73
Cultivated land per draft animal (mu)	26.72	33.67	29.59	29.55	27.86	23.45	27.81	19.24	11.02	6.95
Paddyfields as a percentage of cultivated land	49.76	74.49	40.93	69.78	53.65	35.25	11.12	42.83	0.99	/
Winter paddyfields as a percentage of paddyfields	38.56	9.10	46.43	59.57	40.25	38.34	21.65	9.38	10.58	/
Mechanical horsepower per mu of farmland	0.05	0.07	0.05	0.05	0.05	0.03	0.03	0.05	0.05	0.07
Percentage of land machine farmed	14.68	32.46	15.53	14.22	7.94	7.63	7.27	10.55	7.89	25.65
Percentage of total area irrigated	42.20	75.99	40.47	44.39	37.92	24.27	20.37	48.34	25.13	20.89
Percentage of farmland from which a crop can be guaranteed despite drought or waterlogging	21.85	55.86	21.41	13.90	12.51	8.95	13.77	23.96	11.56	5.71
Amount of fertilization per mu (kgs)	53.73	98.08	55.85	59.22	44.27	34.76	16.29	27.88	20.57	5.40
Grain yields per capita (jin)	653	851	638	633	578	620	633	661	737	420
Grain yields per mu of farmland (jin)	641	903	718	696	593	476	362	483	333	194
Number of hogs per capita	0.43	0.64	0.47	0.35	0.32	0.38	0.31	0.52	0.60	0.19
Number of hogs per mu	0.37	0.53	0.43	0.38	0.30	0.28	0.27	0.34	0.26	0.03

Note: Except for the additional explanations provided on master tables 2 through 7, all statistical data has been taken from "National Economic Satistical Data for 1977" published by the Sichuan Provincial Statistical Bureau

Master Table 3. Status of Farming, Forestry, and Animal Husbandry in All Agricultural Regions of Sichuan Province

Units: (percent)
Whole province 100

Particulars		Zone I	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VIII	Zone IX
Total population		14.70	26.31	20.38	18.10	13.77	1.89	2.57	0.99	0.19
Total agricultural popul.		13.55	28.32	20.56	17.43	11.45	3.04	2.28	0.90	0.49
Agricultural workforce		14.17	29.12	20.51	17.12	13.17	2.07	2.27	1.00	0.58
Total cultivated land		14.16	20.30	17.60	15.90	17.15	3.18	2.95	1.77	0.96
Area sown to farm crops		15.79	25.72	16.73	17.95	17.13	2.49	2.38	1.13	0.48
Grain	sown area	13.72	24.37	17.57	18.77	18.58	2.71	2.48	1.27	0.53
	output	17.67	27.66	19.91	15.43	13.69	1.99	2.31	1.02	0.32
Paddy	sown area	21.58	20.40	25.33	17.83	11.78	0.68	2.39	0.03	/
	output	24.09	22.71	23.23	16.17	10.59	0.71	2.46	0.02	/
Wheat	sown area	16.21	31.62	16.97	16.48	14.42	1.32	2.45	0.52	/
	output	21.22	34.74	17.24	13.63	9.07	1.24	2.18	0.68	/
Corn	sown area	9.44	17.28	9.48	18.64	32.51	6.27	3.45	2.92	0.01
	output	11.81	23.79	10.53	15.26	26.11	6.09	3.32	3.09	0.01
Sweet potatoes	sown area	5.60	38.99	18.23	21.48	14.90	0.51	0.26	0.03	/
	output	4.78	44.41	22.87	15.15	12.25	0.32	0.22	0.01	/
Potatoes	sown area	6.72	2.85	2.51	24.22	46.68	9.53	4.57	2.78	0.14
	output	8.18	3.29	1.88	19.19	44.21	12.85	5.54	4.67	0.18
Highland barley [1]	sown area	/	/	/	/	/	/	/	23.79	76.21
	output	/	/	/	/	/	/	/	28.91	71.09
Cash crops	sown area	19.62	43.33	11.27	12.48	10.17	0.66	2.11	0.27	0.09
Cotton	sown area	6.51	79.83	3.02	6.22	4.42	/	/	/	/
	output	6.72	85.35	1.47	3.89	2.57	/	/	/	/
Rapeseed	sown area	33.61	24.66	13.07	14.71	10.59	0.98	1.79	0.46	0.20
	output	39.29	30.25	11.8[illegible]	11.12	5.92	0.43	0.69	0.32	0.17
Sugarcane	sown area	9.69	34.50	32.27	9.56	4.78	0.83	8.36	/	/
	output	11.86	33.44	30.96	6.63	3.15	1.14	13.82	/	/
Timber forest area		3.26	5.29	2.31	5.71	19.83	9.42	17.26	21.71	12.21
	sown area	1.59	1.24	0.97	0.91	9.86	11.39	10.37	39.05	21.62
Wasteland & mts suitable for forests		2.03	6.91	3.01	6.01	33.56	18.01	16.05	9.64	4.78
Mulberry silkworm cocoon output		4.55	47.45	30.60	12.79	4.19	0.24	0.17	0.01	/
Tea output		10.96	2.08	14.50	14.61	52.01	4.44	0.03	1.37	/
Raw lacquer output		5.91	/	/	2.20	74.50	3.75	3.01	10.57	/
Tung seed output		1.43	17.12	17.58	20.14	42.17	1.09	0.49	/	/
Tea oil output		8.80	3.63	39.51	1.75	45.65	0.15	0.49	/	/
Tallow tree output		8.46	13.52	8.38	1.87	62.34	3.46	1.97	/	/
Walnut output		1.89	12.14	0.92	2.15	44.43	17.32	8.21	12.87	0.01
Fruits: Citrus output		3.80	25.74	31.68	25.89	12.03	0.52	0.27	0.07	/
Apple output		20.47	23.54	0.92	5.07	14.89	12.81	2.04	19.92	0.32
Pear output		11.21	25.97	10.40	6.77	6.21	11.81	16.99	10.62	0.02
Livestock: Hogs		20.15	30.54	16.86	13.05	12.81	2.35	2.73	1.25	0.32
Oxen		4.63	17.14	1.17	11.87	34.57	8.72	8.44	8.37	5.09
Water buffalo		13.91	25.09	23.40	17.04	13.98	1.31	5.25	0.02	/
Yaks & pien niu (incl. ajiao yaks)		/	/	/	/	0.04	0.05	0.20	19.43	80.28
Horses, donkeys & mules		2.47	0.61	1.99	2.33	3.31	7.78	13.90	18.87	48.6[illegible]
Goats		2.53	7.48	5.47	9.49	20.80	9.85	19.82	15.58	8.94
Sheep		0.03	0.08	/	/	0.50	22.46	11.15	12.49	53.28
Total		11.74	23.44	13.21	11.27	13.32	4.63	5.46	4.81	9.12
Figured as converted units [2]		12.19	21.62	12.27	11.01	13.93	3.86	4.85	5.70	13.95

Note: 1. 1973 statistics for highland barley. 2. Method for converting livestock units: 1 large livestock animal equals 5 sheep or goats, or 3.3 hogs.

Master Table 4. Structure of Crops Sown in All Agricultural Regions of Sichuan

Units: (percent)

Particulars	Whole Province	Zone I	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VIII	Zone IX
Grain-sown area as percentage of total sown area	85.59	74.35	80.47	89.90	89.53	92.86	93.24	89.06	96.05	94.04
Winter grain-sown area as percentage of sown area	31.36	30.09	39.74	25.96	30.87	31.89	14.91	28.05	13.06	/
Spring grain-sown area as percentage of sown area	68.64	69.91	60.26	74.04	69.13	68.11	85.09	71.95	86.94	100.00
Paddy-sown area as percentage of total grain area	33.47	52.63	28.01	48.24	31.79	21.11	8.42	32.10	0.74	/
Double-crop paddy area as percentage of field area	7.91	11.51	3.49	12.19	8.49	1.71	0.14	2.31	/	/
Winter wheat area as percentage of grain-sown area	18.88	22.32	24.53	18.23	16.58	14.66	7.18	18.69	7.78	26.07
Potato-growing area as percentage of grain area	4.19	2.35	0.56	0.69	6.18	12.04	10.81	8.88	10.47	1.32
Sweet potato area as percentage of grain area	12.71	5.19	20.33	13.19	14.54	10.19	2.37	1.35	0.29	/
Corn-growing area as percentage of grain area	14.17	9.96	10.26	7.81	14.36	25.31	33.45	20.14	33.24	0.25
Highland barley area as percentage of grain area	0.46	/	/	/	/	/	/	/	8.29	63.93
Other grain-growing area as percentage of grain area	18.12	7.55	16.34	11.84	18.55	16.59	29.74	18.86	39.21	34.50
Cash-crop area as percentage of grain-growing area	13.61	18.86	22.43	8.76	10.67	8.07	2.72	9.75	2.09	1.33
Cash-crop area as percentage of total area sown	7.86	9.78	13.14	5.30	5.46	4.67	2.07	6.97	1.89	1.54
Cotton area as percentage of cash-crop-growing area	29.66	9.85	54.65	7.85	14.76	12.88	/	/	/	/
Rape area as percentage of cash-crop-growing area	37.15	53.63	21.15	43.08	43.88	38.32	55.52	31.51	62.34	79.68
Sugarcane area as percentage of cash-crop area	5.52	2.73	4.40	15.81	4.23	2.60	6.59	21.87	/	/

Master Table 5. Structure of Grain Crop Output in All Agricultural Regions of Sichuan

Particulars	Whole Province	Zone I	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VIII	Zone IX
Winter-sown grain as percentage of total	17.59	17.68	22.25	13.53	15.39	18.69	10.34	14.97	13.09	/
Spring-sown grain as percentage of total	82.41	82.32	77.75	86.47	84.61	81.31	89.66	85.03	86.91	100.00
Paddy as a percentage of total grain	50.39	68.70	41.37	58.77	52.82	38.99	18.10	53.80	1.13	/
Wheat as a percentage of total grain	11.88	14.27	14.92	10.28	10.50	7.80	7.42	11.20	7.91	/
Corn as a percentage of total grain	12.65	8.46	10.88	6.68	12.51	26.12	38.69	18.17	38.37	0.36
Sweet potatoes as percentage of total	14.90	4.03	23.91	17.11	14.63	13.33	2.37	1.42	0.16	/
Potatoes as percentage of total grain	2.76	1.28	0.33	0.26	3.43	8.92	17.82	6.62	12.63	1.62
Highland barley as percentage of total grain	0.25	/	/	/	/	/	/	/	7.25	55.53
Other grain as percentage of total grain	7.17	3.28	8.59	6.89	6.11	6.84	15.60	8.79	32.55	42.49

Master Table 6. Average Crop Yields in All Agricultural Regions of Sichuan

Crop	Whole Province	Zone I	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VIII	Zone IX
Paddy	567	633	631	520	514	510	595	588	460	/
Wheat	237	310	260	241	196	149	223	210	308	/
Corn	329	412	453	366	270	264	320	317	349	331
Sweet potatoes	441	377	503	554	311	363	276	369	104	/
Potatoes	217	264	251	162	172	206	293	262	365	273
Highland barley	/	/	/	/	/	/	/	/	227	174
Cotton	67	69	72	33	42	38	/	/	/	/
Rapeseed	119	139	146	137	[illegible]	67	52	46	83	98
Sugarcane	3,654	4,468	3,342	3,505	2,155	2,410	5,039	6,042	/	/

Master Table 7. Distribution of Livestock in All Agricultural Regions of Sichuan Province

(Total number of livestock = 100)

	Livestock	Whole province	Zone I	Zone II	Zone III	Zone IV	Zone V	Zone VI	Zone VII	Zone VIII	Zone IX
Figured in terms of natural number of head	Hogs	66.76	91.27	87.02	85.26	77.30	64.22	34.47	33.42	17.26	1.61
	Oxen	4.97	1.56	3.63	0.44	5.23	12.89	9.34	7.67	8.64	2.77
	Water buffalo	5.51	5.22	5.90	9.77	8.33	5.79	1.56	5.30	0.03	--
	Yaks and pien niu	5.05	--	--	--	--	0.02	0.06	0.18	20.36	44.41
	Horses, mules, donkeys	0.70	0.12	0.02	0.11	0.15	0.18	1.18	1.78	2.75	3.74
	Goats	10.68	1.83	3.41	4.42	8.99	16.67	22.70	38.73	34.54	10.51
	Sheep	6.33	--	0.02	--	--	0.23	30.69	12.92	16.42	36.96
Figured in terms of converted number of head	Hogs	50.75	79.22	72.03	69.75	60.17	46.66	31.40	28.61	11.08	0.80
	Oxen	12.46	4.47	9.92	1.19	13.43	30.90	28.07	21.67	18.30	4.55
	Water buffalo	13.83	14.91	16.13	26.38	21.41	13.88	4.69	14.97	0.07	--
	Yaks and pien niu	12.66	--	--	--	--	0.04	0.19	0.52	43.13	72.91
	Horses, mules, donkeys	1.76	0.34	0.05	0.29	0.37	0.42	3.54	5.04	5.83	6.15
	Goats	5.36	1.05	1.86	2.39	4.62	7.99	13.66	21.89	14.63	3.45
	Sheep	3.18	0.01	0.01	--	--	0.11	18.45	7.30	6.96	12.14

9432/9365
CSO: 4007/110

- END -

JPRS-CAG-86-027

14 JULY 1986

China Report

AGRICULTURE

FBIS FOREIGN BROADCAST INFORMATION SERVICE

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

PROCUREMENT OF PUBLICATIONS

JPRS publications may be ordered from the National Technical Information Service, Springfield, Virginia 22161. In ordering, it is recommended that the JPRS number, title, date and author, if applicable, of publication be cited.

Current JPRS publications are announced in Government Reports Announcements issued semi-monthly by the National Technical Information Service, and are listed in the Monthly Catalog of U.S. Government Publications issued by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Correspondence pertaining to matters other than procurement may be addressed to Joint Publications Research Service, 1000 North Glebe Road, Arlington, Virginia 22201.

JPRS-CAG-86-027

14 JULY 1986

CHINA REPORT

AGRICULTURE

CONTENTS

PEOPLE'S REPUBLIC OF CHINA

NATIONAL

New Agricultural Development Pattern Aids Ecology
(XINHUA, 13 Jun 86) 1

Crop Insurance Available in 20 of 29 Areas
(XINHUA, 25 Jun 86) 3

Song Jian Interviewed on 'Spark Plan'
(Chen Daian; NONGCUN GONGZUO TONGXUN, No 2, 5 Jan 86) 4

Reform of Agricultural Planning System Discussed
(Ji Huachu; NONGYE JINGJI WENTI, No 1, 23 Jan 86) 8

Loans by Agricultural Bank in 1985 Within Guidelines
(Xiao Ruqin; NONGCUN JINRONG, No 3, 1 Feb 86) 13

Rural Technical Reforms Discussed
(Tao Dinglai; NONGYE GONGCHENG, No 1, 2 Feb 86) 18

Expert Views National Water Conservancy, Control
(XINHUA, 25 Jun 86) 23

Major Growth Reported in Cotton Exports
(XINHUA, 9 Jun 86) 24

Supply, Marketing Cooperative Services Discussed
(Yang Xiaowei; JINGJI RIBAO, 5 Dec 85) 25

Briefs

Foreign Funds for Agriculture 29
Improved Varieties of Seeds 29
New Cotton Strain 29
Beer Production, Consumption Expansion by 1990 30
Water Conservancy 'Essential' 30
Guangxi Grain 30
More Agro-Technique Centers 31
Increase in Grain Sowing Hectarage 31
Key to Grain Production 31
New Grain Production Techniques 32
Training of Young People 32
Wholesale Market Boom Welcomed 32
Peasants in Industry, Service Trade 33
Dairy Industry 33

TRANSPROVINCIAL AFFAIRS

Henan's Sanmenxia Project Yields Results in Many Fields
(Henan Provincial Service, 1 Jun 86) 34

ANHUI

Briefs

Feed Industry 35

BEIJING

Establishment of Farmers Markets in Beijing Suburbs Reported
(Xin Lei, Liu Zhanmei; NONGMIN RIBAO, 8 Jan 86) 36

Serious Water Shortage During Summer Threatened
(Wu Jingshu; CHINA DAILY, 19 Jun 86) 38

FUJIAN

Governor Hu Ping Stresses Grain Production
(FUJIAN RIBAO, 16 May 86) 40

Briefs

Fruit Outputs 42

GUANGDONG

Large Increase in Peasant Income Reported
(Bingsong, Xiaoye; GUANGDONG NONGMIN BAO, 11 Dec 85) 43

Briefs
Banana Output 45

HEBEI

Briefs
Feed Output 46

HUBEI

Hubei Holds Conference on Combating Drought
(Hubei Provincial Service, 5 Jun 86) 47

HUNAN

Six Measures To Stabilize Pork Prices Implemented
(Li Ling, Wan Weixing; HUNAN RIBAO, 18 Feb 86) 49

JIANGSU

Changes in Aquatic Production Described
(Zhou Zhengeng; RENMIN RIBAO, 15 Feb 86) 50

JIANGXI

Rural Technology Market Results Reported
(NONGMIN RIBAO, 18 Mar 86) 52

Briefs
Fish, Cattle Raising Funds Boosted 54

LIAONING

Province To Build Farm Export Centers
(XINHUA, 19 Jun 86) 55

NINGXIA

Briefs
Ningxia Irrigation Facilities 56

SHANDONG

Use of New Stock Urged To Improve Cattle Industry
(Feng Desheng; NONGYEZHISHI, No 1, 5 Jan 86) 57

SHANGHAI

Revitalization of Tobacco Production, Sales
(Sun Zhonglian; WEN HUI BAO, 15 Mar 86) 60

SHANXI

Current Plans for Grain Planting Listed
(SHANXI NONGMIN, 8 Mar 86) 62

Shanxi Silkworm, Mulberry Tree Production Viewed
(SHANXI NONGYE KEXUE, No 12, 20 Dec 85) 64

SICHUAN

Readjustments in Rural Production Structure Discussed
(Huang Peigen, et al.; NONGYE JISHU JINGJI, No 2, Feb 86) 67

First Year Readjustment of Production Results Viewed
(NONGMIN RIBAO, 13 Dec 85) 74

Rural Development, Income Increases, by Zhang Shaoguang, Wu Xiulong 74
Commentary on Rural Structural Readjustment 75

Tobacco Harvest Breaks Records
(Chen Tao; NONGMIN RIBAO, 14 Dec 85) 77

Good Beef, Lamb Sales Maintained
(Shen Shixin; SICHUAN RIBAO, 6 Dec 85) 78

Briefs

New Rural Towns in Sichuan 79
Food Industry 79

XINJIANG

Briefs

Cotton Exports Increase 80

ZHEJIANG

Aquatic Production Increases Described
(Gan Guorong; ZHEJIANG RIBAO, 4 Feb 86) 81

/9987

NEW AGRICULTURAL DEVELOPMENT PATTERN AIDS ECOLOGY

OW130224 Beijing XINHUA in English 0137 GMT 13 Jun 86

[Text] Lanzhou, Jun 13 (XINHUA)--A new pattern of agricultural development which helps restore the ecological balance has attracted the attention of both the Chinese Government and scientists, local experts told XINHUA today.

With recent approval from the Ministry of Agriculture, Animal Husbandry and Fisheries, the new pattern, which gives equal stress to planting grass, raising animals and grain production will be disseminated on northwest China's loess plateau, which covers 600,000 square kilometers and has a population of 30 million.

Professor Ren Jizhou, director of the Gansu Institute of Pasture Ecology, said that the present notorious soil erosion and other disruption of the ecology in the plateau have resulted from abuse of farmland, denudation and over-reclamation of grassland over the past few centures. Farming on the loess plateau, the cradle of Chinese civilization, dates back 7,000 years.

He put forward the program to drastically cut down grain production, develop forestry and fodder planting for water and soil conservancy, expand commodity-oriented animal husbandry and fertilize the land with animal droppings.

The professor and his colleagues started the research project for restoring the ecological balance in the loess highlands three years ago.

They set up an experimental farm covering 13.3 hectares in Gingyang County, Gansu Province. There, the grain crop area has been cut by 14 percent and more legume fodder planted. As a result, per hectare grain output jumped by 60 percent and the total output rose 37 percent, while soil erosion has been alleviated markedly.

They also offer technical services to 24 pilot households in the county. The incomes of all those peasant families have more than doubled.

As an outstanding example among the 24, Qin Shike's family of four have rotated grain crops and grass on the 0.8 hectares they contracted from collective. Grass was used as fodder for rabbits, chickens and pigs, whose droppings were used to produce methane gas as fuel and the residue was used as manure. Now, the per hectare yield of the family's grain has been raised from 1,500 kilograms to 3,375 kilograms, while sales of animals and meat yielded 5,510 yuan last year, 61 percent of the family's total income. The per capita income of this family was 4.5 times the national average rural income in 1985.

Another advantage of the new farming pattern is reduction of the use of chemical fertilizer, thus cutting costs and reducing environmental pollution, the professor said.

He also said that the Chinese and Australian governments have signed an agreement on the joint development of the new farming pattern on the loess plateau.

/6662
CSO: 4020/353

CROP INSURANCE AVAILABLE IN 20 OF 29 AREAS

OW251804 Beijing XINHUA in English 1552 GMT 25 Jun 86

[Text] Beijing, 25 June (XINHUA) -- Crop insurance, a high-risk policy category, is now available in more than 20 of China's 29 provinces, municipalities and autonomous regions, according to a senior Chinese insurance official.

Crop insurance started to develop in the country only in 1981 to meet the needs of the rural economic reforms, and is still on a trial basis and on a small scale, Li Shixian, general manager of the domestic department of the people's insurance company of China (PICC) told a third world insurance meeting in session here today.

In 1985, the PICC received a premium of 17 million yuan from crop insurance, and paid more than 14 million yuan for claims for various losses.

The major crop insured is wheat. The company insured 90 million mu (15 mu equal to one hectare) of harvested wehat throughout the country against threshing-ground fires in 1985.

For industrial crops, the company mainly covers cotton against hail and floods. It also covers flue-cured tobacco, flax, peanuts and fruits against hail, windstorm and fire.

Forest fire insurance, which is very popular with rural farmers, has been extended to about six million mu of forest, Li said.

Crop insurance in China is voluntary, except for some individual counties where certain types of crops must be insured according to the decisions of the local authorities, he added.

/12640
CSO: 4020/361

SONG JIAN INTERVIEWED ON 'SPARK PLAN'

Beijing NONGCUN GONGZUO TONGXUN [RURAL WORK NEWSLETTER] in Chinese No 2, 5 Jan 86 pp 26-27

[Report on interview by staff reporter Chen Daian [7115 0108 1344]: "The 'Spark' of Science and Technology Can 'Start a Prairie Fire'; An Interview with Song Jian, Chairman of the State Science and Technology Commission"; 31 Dec 85, place not given]

[Text] At the beginning of 1985, the State Science and Technology Commission put forward a proposal on the "Spark Plan." Now, the party Central Committee and the State Council have already formally approved it for implementation. The various localities have expressed hearty welcome to this plan. Some say it is the "timely rain" for developing our rual enterprises; some call it "coal in a snowy winter." Why has this plan aroused such powerful response in the various localities? On the eve of New Year's Day, this reporter, with great interest in mind, paid a visit to Comrade Song Jian [1345 0256], Chairman of the State Science and Technology Commission.

Comrade Song Jian pleasantly received this reporter in his office. After an exchange of pleasantries, our conversation turned to the main theme.

[Chen Daian] "I heard that the State Science and Technology Commission has put forward a 'Spark Plan,' and the party Central Committee pays great attention to it; will you please discuss what the purpose, contents, and characteristics of this plan are as well as the point of departure for giving it such a name?"

[Song Jian] The fundamental purpose of this "Spark Plan" is to guide science and technology to serve the reinvigoration of our local economies. During the Seventh 5-Year Plan period, this plan will exploit 100 categories of complete-sets of technical equipment suitable for use by our rual enterprises and also organize large-quantity production; establish 500 technically exemplary rural enterprises and provide them with ready technological crafts, management plans and product designs as well as quality control methods; and train a large contingent of rural intellectual youths and basic-level cadres on a short-term basis each year to enable them to learn one or two advanced skills applicable in their respective regions. In 1985 and 1986, there are 14 key realms for us to exploit; these include the processing of agricultural and sideline products, breeding and cultivation enterprises, and exploration of resources in the hilly areas and the oceans. The characteristic of this plan are to get a handle on a series of "short-term, appropriate, and quick" projects which are of exemplary and motive significance to our medium and small enterprises, especially our rural enterprises and which closely combine technology with our economy, namely, projects of technological exploitation whose cycle of technological achievements being turned into commodities is short and can adapt to the technological level of our medium and small enterprises, thus making it possible for the latter to achieve economic results rather fast, so as to raise the scientific and technological level of our medium and small enterprises, our rural enterprises, and rural construction, and thereby set up new prototypes for further developing our local economies. Today, compared to the requirements of rural enterprise in general, these projects can only be said to be sparks; but their effects can be very great. Hence we call it the "Spark Plan." Since its inception, both central and local authorities have come to regard it as a fine form for spreading science and technology to the countryside.

Rural enterprises have become a sizable force in our national economy, especially our local economies, which cannot be overlooked and an important pillar for building our modern countryside and developing our small townships which are scattered all over the country. The rise and development of our rural enterprises are profoundly changing the structure of our countryside economy and playing a major role in the development of the economy and the social life of the whole country. These rural enterprises have certain strong points which our state-run large enterprises cannot match. But during the last few years the speed of development of these rural enterprises has proved to be far too vigorous; a salient problem they encounter now is the general backwardness of their technical and production management level and their rather low labor productivity. Under such circumstances, if only general encouragement or limitations were to be meted out to them, damage would inevitably result. Therefore, we must provide them with concrete guidance and support from the standpoint of our economic policy, especially of science and technology, so as to make it possible for them to develop forward in an even healthier manner. The "Spark Plan" was put forward precisely to solve the difficulties encountered by our rural enterprises in science and technology. This "Spark Plan" takes as its key points our breeding and cultivation enterprises, the processing of our agricultural and sideline products, and the exploitation of our hilly and coastal areas as well as the exploitation of construction materials for farm use; it is bound to greatly improve the level of our agricultural production and our labor productivity, and thereby provide our market with even more cheap and fine agricultural and sideline products and their processed products. This will be beneficial to stabilizing the prices and constitute an effective support to our entire reform program. In the meantime, the implementation of this "Spark Plan" is also of profound importance to the advancement of our rural enterprises and local industries as well as the reinvigoration of our local economies. For this reason, we think such implementation of this "Spark Plan" is going to be a very hopeful path.

[Chen Daian] "What are the key areas of the "Spark Plan" for near-term exploitation?"

[Song Jian] During the next 2 years, efforts are being made to arrange the following key areas of exploitation: 1) While continuing to grasp closely the tackling of scientific and technological problems in our cultivation enterprises, we shall at the same time energetically spread the factory-like production techniques for the breeding of our domestic fowl, water fowl, and other water species and for our animal husbandry enterprises in order to increase their production, lower their costs, and improve their product quality and labor productivity. 2) Organize our scientific and technological forces to exploit processing techniques and turnkey equipment for turning our agricultural production into factory-like operations. At the same time, organize research institutes and institutions of higher learning in order to digest, reproduce, and improve the equipment we have imported and establish exemplary small factories and training centers to facilitate the spreading of technologies and train talents for the countryside. 3) Organize technological forces to serve the improvement of our technical level in rural housing, market and township construction. Today, the amount of rural housing construction is considerable; however, there exists in this generally the question of such construction being based on old designs, occupying and destroying considerable land, following rather backward lighting methods and having backward hygiene equipment, and also the question of market and township construction lacking blueprints and plans. The "Spark Plan" intends to organize research and design institutions and enterprises to provide new designs, new types of construction materials, new prefabricated construction parts and small-size construction equipment for improving our rural housing conditions and saving our arable land. 4) Spread new techniques in our textiles, improve the quality of our printing and dyeing products, increasing the varieties of our products, actively develop cloth products for daily life and decoration, expand their export capacities, and organize and direct the science and technology departments to apply such new techniques in the production of our consumptive supplies. 5. Train and develop leaders for our modern rural enterprises. There are as many as 10 million middle school graduates in our countryside today; they have not undergone any professional, technical training, they lack production skills, and they are experiencing a burning anxiety. In the face of these conditions, we plan to unite with the Ministry of Agriculture, Animal Husbandry and Fishery, the State Education Commission, and the Science and Technology Association to jointly run short-term training classes in the fashion of the "Military and Political University for Resisting Japan" so as to provide them with technical and economic policy training and foster a large contingent of scientific and technological leaders and basic-level cadres for developing our countryside economy. If calculated according to the average of each county training 100 persons each year, there should be as many as 200,000 throughout the country and 1 million within 5 years cumulatively. This contingent is bound to lead our hundreds and thousands of peasants to march in transition toward a modern countryside economy.

[Chen Daian] "What are the concrete appraoches to implementing our 'Spark Plan'?"

[Song Jian] In implementing this "Spark Plan" we shall first of all select certain priority projects in the 14 areas, give importance to key ones thereof, and let the State Science and Technology Commission and the various other central ministries and commissions direct the various provinces, autonomous regions and direct municipalities to implement it in a planned and organized manner. In every project, we shall do our best to have the scientific research departments, educational departments, production units and training and promotion organs united with one another so as to assure the technical suitability, advancement and exemplary nature of our key projects. Comrade Song Jian especially pointed out, the funds required in implementing this plan will in general be raised in the form of matched investments by all central, local and enterprise concerns. Because these selected exemplary enterprises are mature in their technical development, low in risks, and fast in obtaining returns, it is expected that most of them should have the ability to repay such investments; therefore, repayment of the part of investments allocated by the central authorities is required after profits are earned. Relevant preference and care will be extended to old, newly developed, border and poor areas.

In May 1985, leading comrades of the State Council approved the proposal of the Science and Technology Commission on the "Spark Plan." After this past half year and more, we have discussed with the governments of various localities and concerned departments a series of questions concerning the implementation of this "Spark Plan" and achieved consistent understanding thereof. On the basis of listening to the views of the science and technology commissions of these various localities, we have in October 1985 already made concrete arrangements for several tens of projects. Concrete plans of implementation for 1986 and 1987 are being formulated.

Thus our interview came to a close. This "Spark Plan" had this reporter stimulated; he could not help feeling ebbs and flows in his thought and his imagination, as if he had begun to see that bright and colorful future: relying on the precious sparks provided by this "Spark Plan," we are bound to see them engender the momentum of a prairie fire in our entire countryside, propel our township and town enterprises and our entire rural economy to develop even more steadily and healthily forward. The day of reinvigoration of our rural economy is bound to arrive.

9255
CSO: 4007/307

REFORM OF AGRICULTURAL PLANNING SYSTEM DISCUSSED

Beijing NONGYE JINGJI WENTI [PROBLEMS OF AGRICULTURAL ECONOMICS] in Chinese No 1, 23 Jan 86 pp 49-50

[Article by Ji Huachu [1323 5478 0443] of the Planning Bureau, Ministry of Agriculture, Animal Husbandry and Fishery: "Some Views on Reforming Our Agricultural Planning System"]

[Text] Today, our countryside has already entered the stage of developing a planned commodity economy. Under such a new situation, the matter of reforming our agricultural planning system to have it effectively guide our agricultural commodity economy and promote the overall proportionate development of our national economy has already been put on our agenda. Below, I would like to discuss some of my views on this matter.

1. Guiding Ideology for Reforming Our Agricultural Planning System

To reform our agricultural planning system, we must take as our guiding ideology the CPC Central Committee's "Decision on Restructuring Our Economic System." First of all, a socialist planning system should be one which combines uniformity with flexibility. Speaking in the manner of seeking truth from facts, in a rather long historical period our national economic plan, generally speaking, can only be merely roughly defined and flexible and we can only succeed through the comprehensive balancing and adjustment by economic means of such a plan in achieving control and controlling well its major aspects, and opening up and opening up flexibly its minor aspects, and thereby assuring a fairly appropriate ratio between the relatively more important proportions and the the generally proportionate and coordinated development of our national economy. Secondly, to reform our planning system we must break the concept of putting planned economy in opposition to commodity economy and clearly understand that our socialist planned economy must consciously apply the law of value, fully demonstrate the characteristics of a commodity economy, and at the same time correspondingly reform its approach to planning work and fully emphasize the scientific nature of its economic information and economic forecast as well as its improvement plan.

2. Content and Objectives of Agricultural Planning

The key to agricultural guidance planning is to guide the development of our rural commodity economy; therefore, we must change our approach of the past in determining in advance the production target for certain agricultural and sideline products and then planning the whole structure of our agricultural production. We must follow the objective requirements of our economic development, proceed from the actual situation of the whole country and the concrete realities of different regions, begin with seriously studying the requirements of our society, consider possible conditions for developing our production in the manner of seeking truth from facts, arrange our production structure and production targets as much as possible according to our market needs and consumption structure, and correspondingly make key arrangements for our regional deployment and investment work, and thereby do a good job in our overall planning.

While formulating the overall plan for our agriculture, we must at the same time formulate regional plans for our agriculture, differentiating the various situations and requirements and formulating plans for such regional exploitation, plans for regional or individual drainage management reform, plans for commodity production bases, etc. We must formulate plans for our agricultural specialities and formulate respectively, under the guidance of the overall plan, the developmental plans for our cultivation enterprises, forestry, animal husbandry, aquatic products industries, rural enterprises and trades of the like. These specialty plans must both reflect the characteristics and requirements of the trades themselves respectively and dovetail with the overall plan and plans for related trades. We must also formulate plans for our agricultural themes. That is, during different historical periods, and according to different key tasks proposed by the party and government, we must formulate different theme plans. Plans for our agricultural themes are a complement to, and concrete expression of, our overall plan; they are beneficial to guiding the strengthening of our weak links, giving prominence to strategic points in our work, concentrating our manpower, material and financial resources on given theme projects, and realizing expected targets of planning within predetermined time limits.

Targets of agricultural plans: viewed from the standpoint of macroscopic guidance, our targets of agricultural plans should be roughly defined only and not detailed. We must grasp the main contents relating to our national economy and the people's livelihood and seek to control well the major aspects; apart from the main targets that must be dovetailed with one another above and below, agriculture, animal husbandry and fishery departments at the lower level may, according to the actual conditions of their own respective regions, concretely determine the specific targets for their own regions so as to facilitate using the regions' strong points and do a good job in microscopic regulation. We think in the beginning it is proper for us to list in the state agricultural plan only the overall quantity targets and agricultural output value of foodgrains, cotton, oil products, sugar products, red and yellow hemp, mulberry trees, silkworm cacoons, tea, fruits, vegetables, meats, eggs, cow and goat milk, aquatic products, rubber and items of the like and comprehensive targets such as those of the per capita average income level of the peasants. While simplifying quantitative targets, we must at the same time consider adding certain targets that reflect quality requirements, such as the ratio of lean-meat type of pigs and the proportion of lean meats, the planting proportion for fine-quality rice, sugar products and the ratio of their sugar content, etc., as well as targets that reflect economic results.

3. Procedures and Methods for Formulating Agricultural Plans

Agriculture, animal husbandry and fishery departments at all levels must have their own respective points of emphasis; the central, provincial and perfectural levels must take long-term planning as their main concern and stress macroscopic guidance. Basic-level units below the county should take annual planning as their main concern and pay attention to microscopic regulation. Annual planning must, under the guidance of intermediate and long-term plans, be concretely studied and formulated in keeping with conditions of implementation of the preceding year.

The procedure of formulating an agricultural plan should proceed from the subordinate to the superior level, and from the superior to the subordinate level, with both the superior and the subordinate level united together while relying primarily on the subordinate level. We should thus change the old approach of the past in having the superior level fix the target and the subordinate level simply follow suit, which was an approach that departed from reality. Departments at the superior level should strategically do a good job in economic forecasting to provide reliable information for the formulation of plans by the subordinate level. Departments at the subordinate level must proceed from reality, put forward a program on plan targets according to what is required and what is possible, which, after being submitted upward level by level, and comprehensively reconciled level by level, is thus negotiated and adjusted also level by level and then ultimately determined. Key points in management for agricultural plans at the provincial level and above must be shifted toward macroscopic guidance and strategic study, and toward the study and readjustment of our economic policy in agriculture, consciously use economic levers, do a good job in economic information gathering and forecasting, adopt diverse economic means to guide agricultural management activities at the basic levels so as to have them conform in general to the requirements of the state plan.

Agricultural planning should be based on the characteristics of agricultural production and adapt to the requirements of farming seasons and have annual plans formulated in advance. Generally, efforts should be made in September of the preceding year to put forward the proposed guidance for autumn sowing and the attendant economic policy and convey them to the basic levels so as to enable the peasants to have some relevant idea and to have the planning really play the role of guiding production.

4. Conditions for Implementing Agricultural Plans

An agricultual plan, as a plan of guidance, is beneficial to mobilizing the enthusiasm in production on the part of the locality and vast ranks of the masses and to conscious application of the law of value and arrangement of production according to market requirements; these are the beneficial aspects.

But at the same time it also presents new problems for the management of the plan by the state. In order to assure the implementation of the plan, the state, apart from formulating rational principles and policies and carrying out necessary administrative intervention, mainly wishes to master and apply economic means and rely on its price policy and economic contracts to assure the realization of the plan.

Concerning price policy. To require that prices basically conform to the law of value and the law of change in supply and demand and formulate a fairly reasonable price policy, it is necessary to follow the status of various agricultural products in the national economy and their production costs in order to apply prices for them respectively; by following different conditions, it is possible to apply the state's uniform price, a floating price, and prices based on negotiated purchases or sales; by following the differing situations in space and time, it is possible to apply seasonally differentiated prices, and regionally differentiated prices; by following the difference in quality and variety, too, it is possible to apply quality differential prices and variety differential prices. We must exercise control by levels, delegating the pricing authority on certain small quantities of agricultural and sideline products and locally well-known, superior and special products down to local levels so as to facilitate the development of their production.

We must continue to perfect our economic contracts, expand their contents, and gradually perfect the existing unitary purchasing ones into economic ones really consistent in name and in substance. The contents of these contracts should include the supply of capital and means of production, the requirements of product quality, prices and quantities of purchase, etc., in order to turn them into contracts by which the two signatories mutually shoulder economic responsibilities and which have the force of law.

Meanwhile, we should also use the role of credit loans, tax revenues and economic levers of the like so as to promote the realization of our agricultural plans.

5. Tasks That Should Be Well Done in Reforming Our Agricultural Planning System

A. Adopt practical, effective measures to consolidate the planning organs, strengthen the planning work, equip necessary forces, stabilize business personnel, and improve the quality of the cadres so as to turn these planning organs into the staff headquarters of the departments of agricultural leadership at at all levels for macroscopic decisionmaking, the formulation and development of strategies, and the proportionate development of their production.

B. Strengthen work on gathering economic information, conducting economic analyses, making economic forecasting, and effecting economic coordination in order to provide a scientific basis for the formulation of agricultural plans. Agricultural planning departments at all levels must strengthen their vertical as well as horizontal links, make their business communications close, proceed from the requirements of the planning work, master production and marketing information, study and analyze the requirement of the varieties, quantities and quality of agricultural and sideline products by the domestic and international market as well as the tendency of their development and change and the effects of such change on production, do a good job in systematic economic forecasting, make correct analyses, adjust plan targets, and make our agricultural planning really conform to actuality.

C. Further strengthen our work on agricultural statistics, improve the quality and efficiency of our statistical feedback, and at the same time reinforce our basic investigation work. We must insist on regularly and systematically carrying out the surveying and study of our agricultural product costs and prices, apply such statistical and survey data to the launching of multifarious agricultural and economic analyses, in order to provide a reliable basis for agricultural planning.

D. Fully utilize the results of regional division in agriculture so as to have the uniformity of planning unite with the principle of adaptation to local conditions; give full consideration in our planning work to the effects of natural conditions of a given region on agricultural production, and thereby continue to improve the scientific nature of our agricultural planning.

9255
CSO: 4007/308

LOANS BY AGRICULTURAL BANK IN 1985 WITHIN GUIDELINES

Beijing NONGCUN JINRONG [RURAL FINANCE] in Chinese No 3, 1 Feb 86 pp 7-8

[Article by Xiao Ruqin [5135 3067 0530], executive editor, Ministry of Central Planning: "Scope of Loans by the Agricultural Bank Basically Within Planning in 1985"]

[Text] In 1985, under the leadership of local governments, all levels of the Agricultural Bank conscientiously implemented the directives of the State Council on controlling the scope of loans and the amount of money put into circulation, fully motivating the enthuiasm of the broad mass of cadres and workers, and did a great deal of arduous work to fulfill the tasks placed upon the bank by the party and the state.

I

First, the overall scope of loans was controlled. In 1985, the state approved an increase of 14.2 billion yuan in the overall scope of loans and planning for the Agricultural Bank. When added to temporary loans approved on an individual basis for emergencies, the total loan figure amounted to 14,748,000,000 yuan. With all levels of the bank holding to planned allocations and strict adherence to planned outlays for rural loans, the overall scope of loans was effectively controlled, allocation plans were realized, and the demands of the state for control of the scope of loans were met.

Second, directive planning management was implemented for township and town enterprise loans. The planned increase in such loans for 1985 was 2,024,000,000 yuan. All areas were making development of township and town enterprise the centerpiece to redoubling agricultural output, and the development thrust for these enterprises was so strong that by the end of April the bank has already exceeded planning by 890 million yuan. In response, the Central Bank forwarded a telegram from the State Council on controlling loans to these enterprises. It also decided to institute directive planning management. All levels of the bank adhered strictly to the decisions of the State Council and the Central Bank. At the same time, along with collecting on a few loans in excess of planning according to payment schedules, they responded by adopting measures to control loans for production and equipment--primarily the issuance of circulating fund loans and insisting on specific levels of contribution by the borrower. These measures held loans for township and town enterprises within the plan and maintained appropriate growth. At the end of the year, the increase in loans for township and town enterprises amounted to 2,015,000,000, comprising 99.6 percent of planning.

Third, the scope of loans for technical transformation was strictly controlled. In 1985, the state approved issuance of 710 million yuan for this purpose by the bank as part of loans for basic construction. Approval limits for all banks were centralized. Strict approval procedures were followed. Supervision was carried out depending on the project, and payments were disbursed based on the progress and the quality of construction. At year's end, disbursements for technical transformation loans had increased by 706 million yuan over the previous year and kept completely within planning.

Fourth, supervision was implemented based on deadlines for farm loans. Management of loans for the purchase of farm and sideline products was based on the particular project. For commerce, "savings and loan accounts were separated" in management. This played an important role in controlling the scope of loans.

In addition, the bank in all locations strengthened the implementation of credit and loan planning, and relayed the control situation in a speedy fashion. All facets of rural economic activity and implementation of credit and loan planning were monitored through involvement in substantive investigative studies, and weekly and monthly reports, which discovered the causes for fluctuations in savings and loans; and when problems were discovered, timely measures were adopted. This proved to be "eyes that see 1,000 li" and "ears that follow the wind" in controlling the scope of loans.

II

The question of how to revitalize credit and loan funds under conditions of macroeconomic-level controls was a tough one and one which requires attention. The bank as a whole implemented the following measures with outstanding success:

1. It vigorously marshaled savings and established a system for funding from its own resources. This was a huge breakthrough in the work of rural finance in 1985. For a long time, the Agricultural Bank has relied on credit cooperatives to transfer deposits and ignored its own role in securing deposits. After reforms were done in management of the credit cooperative system, all levels of the bank became more and more aware of the importance of marshaling funds and of the importance of setting up a system for funding from its own resources. They switched over from the practice of focusing on loan issuance to the detriment of deposits to one which stressed the latter. They strengthened leadership, set up institutions, filled the personnel ranks, increased the types of deposits. In addition, they took command over juggling of interest rates and pinpointing the proper time for purchase of farm and sideline products.

They conducted a media blitz and tried versatile measures to improve services. As a result, deposits went up--and rural deposits most extensively--to record-high levels. As of the end of 1985, deposits of all kinds were up 19.56 billion yuan from the previous year, which was 138.5 percent of planning targets. Of this, rural deposits were up 5,486,000,000, which was 219 percent of planning. This opened up a new situation for deposits.

2. A system of reserve funds for deposits was strictly implemented by credit cooperatives, to ensure that the transfer of deposits (including reserve funds) would continue to go up. Since 1985, all levels of the bank have adopted a number of measures to strictly implement a system in which reserve funds for deposits in credit cooperatives amount to 30 percent, so that the trend for the transfer of deposits continues to rise. At the end of 1985, transfer of deposits by credit cooperatives increased 18,629,000,000 yuan from the previous year. Of this, reserve funds for deposits amounted to 10,497,000,000 yuan. Consequently, there has been some alleviation of the tight money situation for the bank for rural credit and loans.

3. Overdue loan collections have been affirmatively done. This has helped accelerate the circulation of funds. The major trend in rural finance in 1985 was toward speedier fund circulation, efficiency, and alleviation of the tight credit situation. All levels of the bank did a great deal or meticulous work toward timely repayment of overdue loans. The "one prize for three repayments" policy was inaugurated, which motivated bank workers, speeded up collections, and improved rate of return.

4. Management and adjustment of funds within the system was strengthened so as to make the most of funds. All levels of the bank strengthened their investigative work in 1985 in accordance with the requirement of reforming money management systems. They adjusted to local conditions and took advantage of regional, time, and space differentials to make adjustments and readjustments within the system, expand lateral flow of funds, and improve utilization efficiency for the funds. Based upon incomplete statistics, the central office alone made 799 adjustments for a total of 32.44 billion yuan. There was an even greater flurry in branch offices and at the grassroots level. Under conditions where a crunch between supply and demand of funds was endemic, this played a tremendous role in supporting agricultural development.

III

The year 1985 was the last in the Sixth 5-Year Plan as well as the first year in the management of credit and loan funds. All banks explored control and revitalization techniques. At the same time, they conscientiously implemented the spirit of Central Committee Document No 1 to spur the countryside to fulfill and surpass the various economic directives set forth in planning and establish a foundation for the Seventh 5-Year Plan. New steps were taken to maintain farm production, readjust rural production structures, and develop township and town enterprise and farm and sideline product purchases, with positive results.

1. They implemented the policy of "absolutely no yield on grain production and affirmative development of diversified operations." They supported the countryside in its fight against severe natural disasters to attain a bumper harvest. All levels of the bank found the funds to help the villages buy improved seeds, fertilizers, and all types of farm equipment, even under tight money conditions, so that they could overcome these catastrophes and not lose hold on farm production. They promoted growth in production of grain, cotton, and oils and came forth with a bumper farm harvest.

2. Readjustment of the structure of rural production was supported to bring some sense to farming, forestry, livestock, sidelines, fisheries, and industry. First, they supported development of feed, foodstuff, and farm sideline processing industries in the major grain and cotton regions, reverting from a situation in which they were just selling raw materials. This brought about a manifold increase in farm product prices, a lively market, and increased income. Second, they supported exploitation and utilization of rural natural resources, made arrangements for excess labor, and turned resource advantages into commodity production advantages. This promoted all facets of economic development. Third, they supported rural development of animal husbandry, fisheries, and all kinds of breeding, and increased the proportions of each of these sectors. Fourth, they supported the countryside in setting up service systems to provide technical assistance, improved strains, transportation, manufacturing, construction, and food and beverage services, which led to development in all sectors.

3. They supported healthy development of township and town enterprises and brought together funds for agricultural modernization. Starting from investigative work and systematic arrangements, all levels of the Agricultural Bank strengthened their support of the processing of feed, foodstuffs, sideline products, small-scale energy and hydropower, construction materials, and township and town enterprises which bring in lots of cash and have good economic returns. Production was up, basic construction down. Leverage was up, and uniformity down. One group received support, another did not, and another was controlled. Township and town enterprise was brought within the correct and appropriate parameters of development and a large sum of cash was accumulated for farm modernization.

4. Support for purchase of firm sideline products and full-scale completion of state procurement plans. State procurements of farm sideline products in 1985 required between 11.5 and 13 billion yuan. Moreover, with the lag in the seasons, procurements and the funds necessary for them came together, which put a dreat deal of pressure on the Agricultural Bank. In order to support the state in getting farm sideline products from the countryside into storage according to plan and prevent the farmers from suffering economic losses, all levels of the bank not only went far and wide to accumulate capital and juggle funds, they also helped the commercial procurement departments to reach their fixed procurement quotas, become involved in the periods and amounts of funding at each procurement station, followed procurement, and followed the supply and demand for funds. They both assured that there would be requisite funds for procurement within

planning, as well as affirmative support for procurement outside of planning. As of the end of December, they had assisted the state in the procurement of 62.41 million dan of cotton, over 110 billion jin of grain, and 4 billion jin of oil, so that state procurement plans were fundamentally achieved.

Finally, agricultural banks throughout the nation were energetic in both macroeconomic controls and microeconomic revitalization, with outstanding results. This was the fruit of the arduous efforts of comrades all across the rural financial front. Although the course over 1985 has been a difficult one, the even more glorious and more imposing tasks of 1986 are now appearing before our eyes. We must conscientiously review the experiences and lessons of 1985 and take even more forthright steps in the new year to fulfill the new tasks placed upon us by the Politburo and the State Council and come forth with even greater contributions.

12303/9190
CSO: 4007/374

RURAL TECHNICAL REFORMS DISCUSSED

Beijing NONGYE GONGCHENG [AGRICULTURAL ENGINEERING] in Chinese No 1, 2 Feb 86 pp 3-4

[Article by Tao Dinglai [7118 7844 0171] of the China Agricultural Engineering Research and Design Institute: "Welcome the New Situation in Rural Technical Reform"]

[Text] Led by the Marxist line since the 3d Plenum of the 11th CPC Central Committee and following the arduous effort of the entire party and people of every nationality in the entire country, we have opened up a new era in which economic development is thriving more than at any time since the founding of the country; the face of the country's economy has undergone enormous and profound changes. This kind of change began with the reforms carried out in China's countryside. Since 1981, Chinese agriculture has progressed at the high rate of 10 percent average annual growth and the output of various agricultural products and by-products has greatly increased, completely turning around the pre-1980 need to import large quantities of grain, cotton, edible oil, and other principal agricultural products; surpluses have been achieved in addition to self-sufficiency. The overall upsurge in agriculture has been of extreme importance in guaranteeing and propelling China's economic and social development.

In addition to the decisive role of the party's policy of enriching the people, the great achievements of Chinese agriculture would have been impossible without rural technical reform.

Unprecedented, Enormous Changes in Rural Technical Reform

We recall that in the first stage of implementation of the production responsibility system, households did the contracting, so that farmland was divided into very small sections, thus creating many difficulties for farmland irrigation and agricultural mechanization. Many comrades had very serious concerns about how to carry out the technical reform of agriculture. Some people even wondered whether Chinese villages would return to the previous style of small agricultural production. Within a short time, facts proved that this really was not the situation. Following the gradual perfection of the output-related contract responsibility system, there has been overall continued growth of agricultural production; the peasants' income has risen quickly; the rural economy has entered onto the track of overall growth in agriculture, forestry, animal husbandry, sideline production, and aquaculture, and comprehensive management of agriculture, industry, commerce, and transport; and the pace of rural technical reform is increasingly faster. Guided by the party's policies of enriching the people, the great numbers of peasants, with the right of self-management, are thirsting after science and technology, using every method to buy advanced chemical fertilizers, farm chemicals, agricultural machinery, plastic covering, and other production materials. The speed of growth and the wide range of businesses would have been unimaginable in the past. We will here only use the example of agricultural machinery and its growth to see the status of technical reform.

I. In Terms of the Output of Several Major Agricultural Implements: In 1982, 274,050 small tractors were actually made, 45 percent more than the previous year; 1983 was 72 percent more than 1982, and 1984 was 39 percent higher than 1983. In 1982, internal combustion engines with capacity of 22.42 million horsepower were actually made, 12.4 percent more than the previous year; 1983 was 25 percent higher than 1982, and 1984 was 31 percent higher than 1983. In 1982, 673,708 small agricultural pumps were actually made, 39 percent more than the previous year; 1983 was 24 percent more than 1982, and 1984 was 20 percent more than 1983. It is worth noting that sales of large agricultural implements, which were difficult to sell for a time during the first stage of implementing the production responsibility system, started going back up in 1984. The output of large and medium tractors and combine harvesters went up 9 percent from 1983 to 1984.

The increase in the output of agricultural implements reflects the needs of peasants. Based on 1984 statistics, the total power of various agricultural implements currently used in the countryside is 265 million horsepower, whereas in 1978 it was 160 million horsepower, an increase of 105 million horsepower over 6 years; the power used in these 6 years was more than 60 percent of the total of all power used in the 20 years before 1984.

II. Agricultural Mechanization at This Time Has the Following Characteristics:

1. These newly added machines were all bought with the peasants' own money. Besides the newly added ones, many machines which formerly belonged to the collective have been turned over to peasants. None of these required state investment.

2. Because the machines are bought by the peasants themselves, we avoid the blind commands of willful senior officials, the machine can be adapted to production needs, and at the same time match the purchasing power of the peasants.

3. The range of machine use has grown. Previous mechanization was primarily in processing, irrigation, and cultivation. In the past few years, the restriction on using tractors for transport has been lifted,

rural mechanized transport has greatly expanded, and the freight volume carried by various large and small tractors is roughly half of the total rural freight volume. This has promoted agricultural production and made the peasants´ lives easier while also making a contribution to the growth of the local community economy.

4. The economic results of engaging in agriculture have improved considerably. An increase in output without an increase in income had long been a problem in China´s agricultural mechanization. Now the agricultural machinery is bought by the peasants themselves, who, of course, are very particular about economic results and will not want uneconomic machinery. Economic surveys of rural households show that the economic results for rural households producing with agricultural machinery are much higher than those of households without machinery.

5. A variety of different agricultural machinery service organizations have sprung up in a number of areas; some are collectively run and others are individually run. They use agricultural machinery to serve households without machinery, or they use larger machines, which have higher prices and more efficiency but are not appropriate for purchase by individual rural households, to serve rural households which only have small machines. This allows use of complete sets of machinery and also avoids duplication in purchases.

6. There have appeared a variety of different cooperatively run organizations which are based on households. These cooperative organizations can help peasants solve the problems encountered in running their own machinery and improve the economic results of agricultural mechanization, because of this they have powerful vitality.

The above was only realized when peasants had the right of individual management in agricultural production and dealing with agricultural machinery. The initiative of peasants played the dominant role in the growth of agricultural mechanization. Therefore, the new situation in rural technical reform is a constituent element of the excellent situation in all of agriculture. This situation is nationwide, from Heilongjiang in the north to Guangdong in the south, from the economically developed area of Jiangsu to relatively backward Gansu; in the past few years there has always been continued, stable, and healthy growth. At present, this situation has just gotten going and in the future it will bear even richer fruit because we have already integrated agricultural mechanization and the peasants´ attainment of prosperity, so that each promotes the other, forming a benevolent cycle; once it has started, this irresistible force will go forward full steam.

III. In This New Situation, Some Problems and Difficulties Still Remain

The first problem is that the state lacks the ability to provide timely organization and guidance of the spontaneous initiative of peasants; for example, the amount of agricultural machinery has increased and the number of tractors engaged in transport has gone up, but the number engaged in field cultivation has generally gone down, so that mechanization cannot play its role in increasing agricultural production. Another example, in order to assure irrigation, every household bought a water pump and diesel engine for its personal use, but the well has only one opening, so that we see one well equipped with many mechanized pumps; this is a waste of machinery as well as a waste of the time used in dismantling and installing machinery. The second problem is that, following the growth of the rural economy and the restructuring of production, there has been an increase in the number of new industries in the countryside, but the variety, quality, and supply of necessary machinery and equipment cannot satisfy the demand. If the masses are unable to buy the things they want, their initiative for developing production will be dampened. The third problem is that the supply of materials, such as petroleum products and spare parts necessary for developing agricultural mechanization, has lagged behind, so that the use of agricultural machinery cannot be relied upon. The fourth problem is the lack of relevant regulations encouraging agricultural mechanization; for example, there still are not clear policy regulations on a preferential price for diesel oil used in agriculture, the tax and fee for tractors driven on roads, subsidized prices for farm machinery, salary and benefits for machinery service technical personnel, and so on. All of these problems, plus a few others, need to be solved through the concerted effort of concerned departments in the government and concerned elements of society. Otherwise, we will not be able to meet the needs of current conditions and our cause will be harmed.

The Great Number of Villages Do Not Merely Need Agricultural Machinery, They Also Need Many Categories of Engineering Technology

Following the growth of the rural economy and the improvement in the peasants' production and lives, villages do not merely need agricultural machinery, they also need many categories of engineering technology. The rise of the breeding industry requires the establishment of hog, chicken, and beef farms on various scales, along with feed, slaughter, and cold-storage plants that are part of the same system. There is a vast array of processed agricultural products and byproducts, all on different scales, but they all need a certain amount of factory space and machinery and equipment. Crop production, animal breeding, and processing all need certain transport facilities before they can develop. The growth of these industries and other township and town enterprises will change rural China's former longstanding focus on crop production; new villages and medium and small towns will gradually be built up. The growth of rural industry in turn will definitely demand further management of farmland, improved resistance to natural disasters, improved level of cultivation, guarantees of stable and high yields, as well as an improved degree of mechanization of farm work, releasing even more manpower that can be shifted to rural industry. This process of mutual linkage and mutual promotion of crop production and rural industry has already been proven by the experience of many of China's economically advanced areas. It is both a road to prosperity for the countryside and a way for China to realize agricultural modernization. For most of China's villages, the current fine situation is just the start of this road, and a great future lies before us.

We are speaking here only of one aspect of rural production development; sometimes the improvement of the peasants´ lives is even more important. The fact is that when peasants have money, they often think first of improving their housing conditions. Building new houses and new villages has been going on for some time in many places. New village and town plans, new housing designs, new building materials, and improved rural sanitary conditions, water supply, heating, prevention of environmental pollution, and other problems have all become part of the agenda and require solutions from us.

Therefore, rural technical reform requires not merely agricultural mechanization, but rather more thorough engineering technology; in addition to agricultural machinery projects, this include field management projects, agricultural building projects, rural electrification, environmental sanitation projects, projects based on agricultural energy sources, livestock- and poultry-rearing projects, projects for processing feed, food and other agricultural materials, etc.

Strive To Develop the Fine Situation

In the engineering technology discussed above, there are many areas in which we already have a fine foundation and a store of scientific knowledge which can immediately be provided for use in production; others are still a blank or are just starting to get going, and these will need the concerted and redoubled efforts of many comrades from different areas of science and different specialties before they can meet the needs of the current situation. Recently, the state decided to change Beijing Agricultural Mechanization College into Beijing Agricultural Engineering University, and to establish an Agricultural Engineering College at Nanjing Agricultural University; at the same time, the agricultural mechanization departments at Northeast Agricultural College, Shenyang Agricultural College, and other agricultural colleges and universities are following this trend and becoming departments of agricultural engineering. Concerned departments have organized discussions on the questions of setting up specialties in the field of agricultural engineering in colleges and universities and have made appropriate decisions. We celebrate the major reforms made by the state in education, which prepare high-level technical personnel for the technical reform of China´s countryside.

In Comrade Deng Xiaoping´s talk to the CPC National Congress, he stated: "The almost 7 years since the 3d Plenum of the 11th CPC Central Committee have been one of the finest and most crucial periods since the founding of the country..." In regard to the condition of rural technical reform, Comrade Xiaoping´s words are in full accord with our reality. The present excellent situation has been won only after many years of searching and passing over circuitous paths. It was far from easy to arrive at the current situation. We should earnestly perform every aspect of the urgently needed work, enthusiastically support the initiative of the masses in carrying out technical reform, develop this situation, and make a contribution to the victorious completion of the Seventh 5-Year Plan for the Chinese national economy and social development.

12919/12781
CSO: 4007/310

EXPERT VIEWS NATIONAL WATER CONSERVANCY, CONTROL

OW251806 Beijing XINHUA in English 1559 GMT 25 Jun 86

[Text] Beijing, 25 June (XINHUA) -- China is still facing the threat of floods across the country and severe shortage of water resources in the north, Yan Kai, a noted water conservancy expert warned today.

Speaking at the on-going third congress of the Chinese Association for Science and Technology, the 73-year-old professor called on the whole nation to pay greater attention to the water conservancy problem and pool the wisdom of the scientists to solve it.

Yan said that a total of 89 million yuan was invested in the construction of water conservancy projects throughout the country over the past 30 years, however, the country has not basically controlled floods and droughts.

Of China's seven major rivers, the Yellow River, China's second- longest brings on a specially large flood every century; the Haihe River in north China, every 50 years; the Huaihe River in east China, every 40 years; the Songhua River in northeast China, every 20 to 40 years; and the Yangtze River, the largest of its kind in China, every 10 to 20 years.

The professor stressed, "as China's major political, economic and cultural areas are mainly located in the middle and lower reaches of these rivers, it is important to work out urgent measures to control large floods while continuing to build and consolidate anti-flood projects."

The measures include food forecasts and control, and social welfare in the flooded areas.

Yan Kai indicated that China has an estimated 2700 billion cubic meters of water resources, ranking sixth in the world. But the uneven distribution of the water resources causes northern China to be deficient in water.

The professor suggested making comprehensive use of water resources in northern China, transfering water from rivers in the south to the north and developing dry-field crops.

/12640
CSO: 4020/361

MAJOR GROWTH REPORTED IN COTTON EXPORTS

OW091425 Beijing XINHUA in English 1411 GMT 9 Jun 86

[Text] Beijing, Jun 9 (XINHUA)--The correct economic policy in the rural areas has converted China from a cotton importer into an exporter in three years.

China exported 350,000 tons of cotton in 1985 and this year will see a big increase, according to a national meeting that opened here today. That will probably make the country the third-largest cotton exporter in the world after the United States and the Soviet Union.

Cotton was shipped to over 30 countries and regions in the first five months of this year, Vice-Minister of Commerce Pan Yao told XINHUA today.

"We are now entering the stage of consolidating and expanding cotton exports," he said.

China began to export cotton in 1983. Before that year, the country had to depend on imports in order to meet the needs of the one billion consumers. In 1980, 900,000 tons of cotton were imported, registering a record high.

Even during the making of the Sixth Five-Year Plan (1981-1985), the authorities expected an import of 550,000 to 700,000 tons for 1985.

But to their surprise, the cotton harvests were bumper ones for five years in a row, thanks to the new economic policies in the rural areas initiated by the government in 1979. In 1984, the cotton output reached 6.25 million tons--840,000 tons more than the combined total of the United States and the Soviet Union.

Statistics showed that in 1983, China exported 68,000 tons of cotton. The figure rose to 200,000 tons in 1984.

"We never expected that we could change from being a cotton importer into an exporter in such a short span," said Pan Yao.

But specialists pointed out that as China has a large area suitable for cotton planting and has centuries-long experience in the work, it is possible to spur the cotton production by a big margin.
/6662
CSO: 4020/353

SUPPLY, MARKETING COOPERATIVE SERVICES DISCUSSED

Beijing JINGJI RIBAO in Chinese 5 Dec 85 p 3

[Article by Yang Xiaowei [2799 2556 3634]: "We Should Turn Supply and Marketing Cooperatives into Comprehensive Service Centers in the Countryside"]

[Text] Commodity Production in the Countryside Requires a Service System

In the new era of our socialist modernization, the party and the state have posted higher requirements for our supply and marketing cooperatives which, on the basis of reviving the collective type of ownership, must be gradually turned into centers for supply and marketing, processing, storage, transport, technology and services of the like. The core of these comprehensive services should be "services," that is, all kinds of services before, after, and in the process of production; in other words, they should provide all the services required by the development of commodity production in the countryside.

After the establishment of the family contract responsibility system in the countryside, the enthusiasm on the part of the peasants for developing commodity production has been very high; but there have also been risks. Information, prices, transportation, sales outlets, etc., are all problems urgently awaiting solution. The way to solve these problems is to establish a service system for commodity production; this is an objective requirement in our promotion of the development of commodity production in the countryside.

Commodity production is specialized production, and specialization must be based on a division of labor. The finer such division, the higher would be the degree of such specialization. These services around commodity production are bound to develop away from production and into specialized services in certain aspects.

Commodity production is large-scale production. In the case of small commodity production, in no aspect does it have to depend on others; it can handle purchasing and marketing and transportation all by itself. In the case of large-scale socialist commodity production, it is impossible for producers to handle everything by themselves; they are bound to develop toward specialization and into relatively independent service systems.

Commodity production is one which gradually adopts advanced production technologies; only advanced technologies can cope with large-scale production. Large-scale production requires advanced technology. In order to master advanced technology, we must have specialized talents. Speaking from this angle, we also need specialized services.

Commodity production is one which is subject to control by the market law of supply and demand; even in the case of planned production, it is still controlled by this law. Hence, we need to understand market conditions, master market information, and prevent blind production. These matters cannot possibly be handled by each and every household, as they objectively require social services.

Commodity production in our countryside is one with cooperative economy as a mainstay under the guidance of our state plan; establishing a social services system is also required by state plans, by the development of an urban and rural economic link. since that would benefit the strengthening of our worker-peasant alliance and establishment of a new socialist urban-rural relationship. To turn our supply and marketing cooperatives into comprehensive services centers in the countryside is an important component in our rural service system.

The services of these comprehensive services centers are social services. Social services serve specialization; the agricultural producers only handle the link of production, where as the various links serving production may develop away from production, become specialized, and re-absorbed again into production and become a whole system of organic links.

These comprehensive services are active, not passive; they are planned, not blind. Services must participate in production, organize production, and guide production. By relying on the concept of systematic management, they keep under control the whole situation of our rural economy and actively provide the services on the basis of such whole situation of the development of our rural economy.

Whether or not we are going to turn them into comprehensive services centers mainly depends on how we view their social effects, on whether the state of improvement of our development of commodity production in the countryside and in the peasants' living conditions, on the state of the expansion of the breadth of our services, the opening up of new production avenues, and the employment of our surplus laborers in the countryside, on the condition under which countryside products adapt to the market--should they seem to meet the needs of the consumer and hence easier to sell, that would mean the guidance thus provided is proper--and on the degree to which they satisfy the needs of the peasants' production and livelihood. Provision of such services to the rural economy can only be multi-component, multifarious and multi-channeled and not handled single-handedly by supply and marketing cooperatives. But, in order to become "centers," they should certainly satisfy the main parts of those needs. Social effects and the enterprise results of supply and marketing cooperatives should be consistent with each other; the higher the social effects, the faster the supply and marketing cooperatives would develop; the greater their economic strength, the better, too, would they be able to promote the improvement of their social effects.

Supply and Marketing Cooperatives Have the Strong Points of Becoming Comprehensive Services Centers

Today, our countryside is a multi-department and multi-component economic structure. Under such circumstances, if the party and the state are to turn the supply and marketing cooperatives into comprehensive services centers in the countryside, it would mean the greatest trust being put on these supply and marketing cooperatives; hence this also brings with it even higher requirements. Supply and marketing cooperatives have the objective conditions for becoming comprehensive services centers, as they are characterized by especially strong points.

Ideologically speaking, supply and marking cooperatives have the glorious tradition of serving the peasants; ever since the day they were born, they have taken the serving of the peasants' production and livelihood as their purpose and not aimed at making profits; they have also gained the trust of the masses of the peasants.

Organizationally speaking, the supply and marketing cooperatives constitute a complete organizational system and system of circulation with constituents spreading all over the country. There are 35,000 basic-level supply and marketing cooperatives across the country and 2,100 county supply and marketing cooperatives; there are 460,000 purchase and sales network outlets, more than 10,000 wholesale organs, and more than 28,000 processing enterprises.

Financially speaking, the supply and marketing cooperatives have rather abundant economic strength; their accumulation over the years have amounted to 26 billion yuan, with the masses of the peasants continuing to come in as shareholders and fund raisers, so that they really possess such economic strength for serving commodity production in the countryside.

Speaking in terms of conditions of their ranks, the supply and marketing cooperatives today have more than 4 billion staff and workers; they have preliminarily formed a contingent of people informed on their business and adept at management.

All of these are the strong points of the supply and marketing cooperatives, and, namely, also the objectives for being susceptible to becoming service centers in the countryside. If not fully utilized, they would not be real strong points at all. Here the key lies in our carrying out reform of our supply and marketing cooperatives in a deepening way.

How to Bring About Comprehensive Services Centers

We must further rectify our guiding ideology, and shift our stand really to the promotion of commodity production in the countryside. This may be said to be a strategic change. Break the traditional concept of the "businessman" and establish the concept of serving commodity production in the countryside. In commodity production, all the state, the collectives and the individuals must contribute their efforts. Whosoever can benefit the development of commodity production, be it the state, a collective or an individual, should be the object of service by the supply and marketing cooperatives.

We must correctly treat the relationship between self-run business and the services. A self-managed business and the services are consistent with, and not contradictory to, each other. Whatever self-managed business is to be launched, it is always necessary to begin with developing commodity production in the countryside; the better the services are provided, the faster would be the development of the production, and the faster, too, would be the development of the self-managed business. The two are complementary and supplementary to each other. Today, certain supply mand marketing cooperatives are too busy managing their own businesses, making money, issuing rewards, or even competing for profits between those above and those below, struggling to handle that which yields big profits while leaving those making little profits alone, thus lacking sufficient consideration for their social effects; this certainly merits our attention.

We must participate in the planning of production development in the countryside. In particular, at a time when the industrial structure in the countryside is up for readjustment, our supply and marketing cooperatives must actively chip in, serve as staff, make suggestions, and understand the prevailing situation. This is a propitious time for participate in production and guiding production; if we should let it go, we would become passive.

We must exploit new avenues of production and promote new economic links. Because of the readjustment of the industrial structure in the countryside, there will be a contingent of laborers shifting to new industries, especially product processing and tertiary industries in the countryside; we should therefore actively exploit them and organize them, and develop in the direction of specialized cooperatives. For instances, in the case of specialized cooperatives such as beekeeping, pomology, mining, processing, etc., the supply and marketing cooperatives in the future are most likely to become joint cooperatives.

We must strengthen the construction of the supply and marketing cooperatives themselves, and raise their level of service. At present, what is important is: First, we must strengthen the construction of the combines so as to give full scope to the strong points of a system. Second, we need to establish a nationwide information network and a trade center, because commodity production has no county boundaries or provincial boundaries; only with a nationwide information network and a trade center can we energetically guide our production and organize our circulation. And third, we must do a good job in building up our ranks and turn them into a contingent of staff and workers with proper ideology, enlightenment on business, and adeptness in management.

9255
CSO: 4007/239

BRIEFS

FOREIGN FUNDS FOR AGRICULTURE--Beijing, May 21 (XINHUA)--China has used foreign funds worth two billion U.S. dollars for developing agriculture over the past five years, today's ECONOMIC DAILY reported. The World Bank has granted 70 million dollars in loans, for improving the saline soil in north China, reclaiming land in Heilongjiang Province, rejuvenating rubber plantations in Guangdong, expanding an irrigation network in Anhui, as well as for agricultural education and reserach. Three United Nations organizations are also aiding China in its agricultural development, the paper said. These are the UN Food and Agriculture Organization, development program and international fund for agricultural development. Scores of countries have extended loans or donations for the same purpose, it added. [Text] [Beijing XINHUA in English 1353 GMT 21 May 86 OW] /6662

IMPROVED VARIETIES OF SEEDS--Xian, Jun 9 (XINHUA)--China plans to plant 750 tons of improved seed varieties of major crops in 1990, which will account for 50 percent of the total seeds needed, compared with 18 percent in 1985. During the 1986-90 period, China expects to plant new varieties of grain on 25 million hectares. This was revealed at a national meeting of managers of seed corporations which ended here last week. Nationwide, China now has over 2,000 seed companies with a total employment of 52,000 people, said an official of China national seed corporation. During the period, improved cotton and rape seeds will also be spread, he added. China will also develop new varieties of vegetables, fodder crop and famous products for export. To promote the development of seeds, China will invest 1.1 billion yuan in the next five years. [Text] [Beijing XINHUA in English 1452 GMT 9 Jun 86 OW] /6662

NEW COTTON STRAIN--Beijing, May 26 (XINHUA)--A new strain of cotton, called "Ejing 92", has been found to produce the whitest and strongest cotton in the Yangtze river basin, today GUANGMING DAILY reported. "Ejing 92" was developed by Zhou Xin, an assistant fellow at the agricultural research institute of Jingzhou Prefecture in Hubei Province. Starting in 1971, Zhou spent nearly ten years breeding the new cotton from 4,091 varieties. In an experiment conducted around the country between 1978 and 1983, "Ejing 92" was first in both quality and output. Its per hectare output was two times more than that of an imported strain. Before 1985, "Ejing 92" cotton was planted in 153,000 hectares and its economic return came to 100 million yuan (over 30 million U.S. dollars). The cotton has been sold to 15 countries and regions since the beginning of last year, the paper said. [Text] [Beijing XINHUA in English 0537 GMT 26 May 86 OW] /6662

BEER PRODUCTION, CONSUMPTION EXPANSION BY 1990--Xian, Jun 12 (XINHUA)--Construction of a big brewery with an annual production capacity of 100 million liters started here today. It is one of three breweries of the same size to be built during the 1986-90 period. The other two are to be located in Chongqing, in Sichuan Province, and in Nanjing, in Jiangsu Province, according to Vice-Minister of Light Industry He Zhihua, who attended today's foundation-stone laying ceremony. The project under construction, involving a total investment of 150 million yuan, will be completed by 1990. Key equipment will be imported from abroad. Beer production in China has a history of over 80 years. However, it began to grow markedly only six years ago with an average output increase of 30 percent each year. Nationwide, China now has some 500 breweries, which produced 3.1 billion liters of beer in 1985, ranking 11th in the world. However, supply is still failing to quench thirsts, especially in the large cities, since beer has become a popular daily drink in China over the past few years. The vice-minister said that by 1990, China's annual beer output will reach six billion liters when the three big new breweries, as well as a batch of small and medium-sized breweries, are completed. By then, the average annual beer consumption in China will double to six liters per capita, he said. [Text] [Beijing XINHUA in English 1413 GMT 12 Jun 86 OW] /6662

WATER CONSERVANCY 'ESSENTIAL'--["Farmers 'Must Learn Lessons From Drought'"--XINHUA headline] Beijing, Jun 6 (XINHUA)--Water conservancy must be an essential part of the future development of China's farming, senior Chinese agricultural official Du Runsheng said today. Du, director of the Rural Policy Research Center of the Chinese Communist Party Central Committee Secretariat, was addressing a rural water-conservancy meeting here. The current drought in northern China demonstrated clearly that water resources were in as short supply as cultivated land and forests. "Efficiency first" must be the guiding principle in the future construction of China's water conservancy facilities, he said. Existing facilities must be taken good care of to guard against their falling into disrepair. While rules and regulations must be applied to restrict the use of water, technical renovation must also be stepped up to promote water saving. At present, only about 40 percent of irrigation water was used properly. The rest leaked away or evaporated before reaching the fields. More irrigation pipes must be laid to reduce the waste, and humidity-testing systems introduced to ensure crops received the water they needed. Du also warned that water must be protected from pollution from rural factories, which were mushrooming throughout the country. [Text] [Beijing XINHUA in English 1518 GMT 6 Jun 86 OW] /6662

GUANGXI GRAIN--Beijing, Jun 10 (XINHUA)--Grain output in south China's Guangxi Zhuang Autonomous Region is expected to increase 400 million kilograms over last year unless hit by an unanticipated natural disaster. Regional officials say their prediction is based on an increase in farmland, use of better seeds and fertilizer, and an analysis of current crop growth. [Excerpts] [Beijing XINHUA in English 1029 GMT 10 Jun 86 OW] /6662

MORE AGRO-TECHNIQUE CENTERS--Beijing, Jun 12 (XINHUA)--China has so far established over 500 county-level agro-technique centers in a bid to spread technology in the agricultural sector, according to the Ministry of Agriculture, Animal Husbandry and Fisheries today. This means that about a quarter of China's counties now have such centers, which aim at coordinating the work of independent research units, plant protection stations and training classes. In many counties, according to the minsitry, they are backed by village teams staffed by peasant technicians. The centers were built with both investment from the central government and money pooled from localities. The work to set up such centers began in 1979. [Text] [Beijing XINHUA in English 1432 GMT 12 Jun 86 OW] /6662

INCREASE IN GRAIN SOWING HECTARAGE--Beijing, May 9 (XINHUA)--The area of farmland sown with grain this year will increase by 1.7 percent over last year to 72,600 hectares, the ECONOMIC DAILY reported today. The paper quoted the State Statistics Bureau as saying that sowing areas for the high-yield crops of Chinese sorghum, maize and rice will be expanded by 12.1 percent, 8.2 percent and 2.1 percent, respectively, over last year, and that for soybean, an oil crop, by 13.9 percent. The bureau gave the figures based on a sample survey of 84,000 rural households in 745 counties. According to the bureau, 18 provinces, municipalities and autonomous regions have expanded their grain-sowing areas, while ten have suffered a reduction. The grain-sowing areas in counties which usually market large amounts of surplus grain will increase by 3.2 percent this year over last, to 6,066 hectares. [Text] [Beijing XINHUA in English 0553 GMT 9 May 86 OW] /6662

KEY TO GRAIN PRODUCTION--Beijing, May 21 (XINHUA)--Improving low-yielding farmland and reational use of fertilizers will help China reach the grain production goal set by its Seventh Five-Year Plan, according to today's ECONOMIC DAILY. China plans to produce 450 million tons of grain by 1990, 70 million tons more than in 1985. This means an annual increase of 14 million tons. The paper quotes experts as saying that one solution lies in the potentials of the country's 66 million hectares of low-yielding farmland which account for about two-thirds of the total. Experiments in the past five years on 1.3 million hectares of such farmland in 50 counties show that the low-yielding land may increase output between 375 and 750 kilograms per hectare. About 6.6 million hectares of such land has been improved. In Sichuan Province, for instance, the two million hectares of such improved farmland registered a total increase of 6.1 million tons of grain in the past five years. China has applied formulated manuring (rational use of nitrogen, phosphorus and potassium fertilizers) to 30 million hectares during the 1981-85 period, which increased grain output by 10 million tons a year. By rational use of fertilizer, one hectare can yield 600 kilograms more of grain. In the lower-yielding areas, output had even doubled. Chinese agricultural authorities predict that formulated manuring will be applied to 100 million hectares in the next five years. Another 13 million hectares of low-yielding land will be improved. The two measures will, experts say, increase grain production by 40 million tons, or 57 percent of the planned increase in the 1986-1990 period. [Text] [Beijing XINHUA in English 0941 GMT 21 May 86 OW] /6662

NEW GRAIN PRODUCTION TECHNIQUES--Beijing, Jun 6 (XINHUA)--Sixteen new agricultural techniques applied to three million hectares of farmland last year have so far boosted grain production by 1.93 billion kilograms, it was reported here today. The output value of the extra grain is estimated at 1.14 billion yuan, said an official of the national center to promote agricultural techniques. The official said that while the center had been concentrating on grain production, it had also promoted techniques to increase the output of cotton, peanuts, sugar cane, rape and tea, and new methods of preserving fresh fruit. These techniques had resulted in the production of an extra 650 million yuan of these crops. [Text] [Beijing XINHUA in English 1435 GMT 6 Jun 86 OW] /6662

TRAINING OF YOUNG PEOPLE--Beijing, May 21 (XINHUA)--Roughly 10 percent of the people of China's countryside have learned one or more work skills over the past five years, according to today's GUANGMING DAILY. In all they are 80 million young people between the ages of 18 and 35. About one quarter of the trainees are women. Help has come from teachers and students of agriculture colleges all over China who give lectures and technical consultancy. More than 80,000 peasants have received professional training in these schools. The paper reports that most of the young people are now scientific farmers, technicians in rural enterprises or engaged in special side-line production. In the past, young peasants tended to confine their knowledge to traditional farming or animal husbandry techniques learned by example. Now, 41,000 townships have set up science popularizing societies to satisfy the desire of young farmers from better skills. There are also 60,000 societies to study special techniques. Scientific, youth and women's organizations at all levels have opened 13,000 peasant technical schools and 400,000 sessions of training classes. [Text] [Beijing XINHUA in English 0719 GMT 21 May 86 OW] /6662

WHOLESALE MARKET BOOM WELCOMED--Beijing, Jun 12 (XINHUA)--China's wholesale markets have greatly promoted the flow of farm products and been welcomed by both peasants and consumers. According to a domestic trade official, China had nearly 2,000 wholesale markets, mostly located in cities, by the end of 1985. The figure is estimated to climb to more than 6,000 by the year 2000, to become a major channel for China's rural products. Now all kinds of business people can bring goods into and out of the market. The prices float according to the amount and quality of supply. Peasants and state work units bring farm products as far as 1,000 km to such markets to get a good price, and retailers quickly grab the best-selling goods. Before a grain wholesale market was set up in 1984 in Wuhu, Anyui Province, the surrounding four counties had a surplus of about 50,000 tons of grain they could not sell each year. But during the first year of its operation, the market helped the peasants sell 27,000 tons of grain. The total value of goods traded in the biggest wholesale market in north Beijing reached more than 4.9 million yuan last year, the official said. With the open policy being carried out throughout the country, barriers have been removed between provinces and cities. A wholesale market in Shenyang, in northeast China, has connections with 27 provinces and cities. Meanwhile, officials of commercial departments have called for smoother management of wholesale markets. [Text] [Beijing XINHUA in English 0124 GMT 12 Jun 86 OW] /6662

PEASANTS IN INDUSTRY, SERVICE TRADE--Beijing, Jun 12 (XINHUA)--Nearly one in five Chinese peasants has left farming to work in rural industrial and service enterprises, according to the State Statistics Bureau. Eighteen percent of China's 370 million peasants work outside the fields, up from 10 percent in 1980. Most work in rural industry. "This shows peasants are continuing to find new ways to support themselves beyond the limitations of life on the farm," a bureau official said. Even among agricultural workers, he said, increasing numbers have given up growing grain for raising fish and animals as well as other farm-related activities. Most who work in industry are involved in construction. Most service workers are involved in transportation, commerce or restaurants. The change in work patterns has generated enormous productivity gains, the official said. Last year, the 370 million peasants created value averaging 1,671 yuan. But the average farm worker created only 18.8 percent of the value produced by people in industry and only 22.3 percent of that made in service trades, according to the bureau. [Text] [Beijing XINHUA in English 1127 GMT 12 Jun 86 OW] /6662

DAIRY INDUSTRY--In the past few years, the dairy industry has developed in China, from 1981 to 1984 the average annual increase in the number of dairy cows was 10 percent, the average annual increase in milk production was 15 percent. At present, there are 1,600,000 dairy cows, and annual milk production is 2,500,000 tons. From ZHONGGUO SHIPIN BAO [Excerpt] [Shanghai WEN HUI BAO in Chinese 4 Jun 86 p 1]

CSO: 4007/447

HENAN'S SANMENXIA PROJECT YIELDS RESULTS IN MANY FIELDS

HK021109 Zhengzhou Henan Provincial Service in Mandarin 2200 GMT 1 Jun 86

[Text] After 30 years of construction, the Sanmenxia pivotal water conservation project on the Huanghe has yielded comprehensive results in preventing floods, discharging silt, irrigating farmland, and generating electricity, thus providing valuable experiences to the country in intellectual exploitation of the Huanghe.

The project, which began in 1957, is the first big dam China built on the 10,000-Li Huanghe. The project was designed mainly for flood prevention and high-head hydropower generating production. The whole project was conducted in three stages; namely, original construction, expansion, and reconstruction. The original construction of the project was basically completed in 1962. The first high-head hydro-power generating unit was successfully manufactured. However, due to the failure to fully understand the objective law of the silt in the Huanghe, once the big dam stored water and generated electricity, there were enormous silt deposits at the bottom of the dam.

In December 1964, the late Premier Zhou Enlai personally held a conference on harnessing the Huanghe and studied the reconstruction of the Sanmenxia reservoir project. The reconstruction project, which aimed mainly at preventing floods, discharging silt, and generating electricity with discharged floods, started in 1965. By expanding the flood-discharging capacity of the bottom of the dam and taking such methods as discharging mud from water and drawing silt by force, the reconstruction project successfully solved the problem of silt deposits at the bottom of the reservoir area. In 1973, five China-made 50,000-kilowatt turbogenerators were successively put into operation. [words indistinct] The store capacity of the reservoir has been over 1.4 billion cubic meters.

Dur to the role of the big dam of the Sanmenxia project in regulating discharged water, some 600 million yuan have been saved for repairing and strengthening dykes in the lower reaches of the Huanghe, vicious floods in the lower reaches have been effectively controlled, and some 18 million mu of farmland in Henan and Shandong have been irrigated. The China-made generating units have also achieved remarkable results. From the date they were put into operation to the end of May this year, the generating units generated a total of 10.5 billion kWh of electricity, with an output value of more than 700 million yuan. The income from generating electricity alone has covered all the money invested by the state in the pivotal water conservation project.

/8918
CSO: 4007/431

ANHUI

BRIEFS

FEED INDUSTRY--For the past 3 years, the feed industry in Anhui has rapidly developed. Last year, gross output was more than 700,000 tons, and Anhui went from 27th place in the nation to 4th place. In the first quarter of this year, the province produced more than 220,000 tons, a more than 30 percent increase over the same period last year. Beginning in 1983, each level of the party and government concentrated on the feed industry, more than 40 million yuan was invested in the industry, and 82 large and medium-size feed mills were built. As of the end of March, the proportion of mixed feed in the total output increased from 34.4 percent in 1984 to 46.85 percent, grain content exceeded one-half, and bran content was reduced by 30 percent. [Excerpts] [Hefei ANHUI RIBAO in Chinese 6 May 86 p 1] /8309

CSO: 4007/434

ESTABLISHMENT OF FARMERS MARKETS IN BEIJING SUBURBS REPORTED

Beijing NONGMIN RIBAO in Chinese 8 Jan 86 p 1

[Report by correspondent Xin Lei [6580 7191] and staff reporter Liu Zhanmei [0491 0594 4875]: "Opening New Channels for Vegetable Circulation, Solving Difficulties in Selling and Buying Vegetables: Peasants in Beijing's Suburbs Set up 67 Vegetable Wholesale Markets--Vegetables Exchanged in These Markets During Past 7 Months Amounting to 200 Million Jin, Making up One-third of Total Volume Marketed by Villiages"]

[Text] In order to adapt to the new situation of the restructuring of our vegetable production and marketing system, solve the vegetable farmer's "difficulty in selling his vegetables" and provide the nation's capital with more fresh vegetables, the peasants in Beijing's suburbs have set up 67 vegetable wholesale markets and collection-distribution depots. From mid-May to the end of last year, as much as 200 million jin of vegetables were brought through these depots and markets into the market, which made up one-third of the total volume marketed by the villages.

Last year, after the restructuring of Beijing's vegetable production and marketing system, 60 percent of the 177,000 mu of vegetable fields in Beijing's suburbs was contracted out to individual peasant households. Vegetables as commodities must be brought into the market in a concentrated way, but vegetable farmers usually produce them in a scattered manner. Thus, on account of worries about a lack of timely market information, of shortage of means of transportation, there has emerged among them a situation of "difficulty in selling vegetables," whereas the state-run vegetable departments have long resorted to uniform purchase and marketing, providing few channels of circulation, hence there has emerged likewise a situation of "difficulty in buying vegetables" in the city. In order to solve these two new problems, rural cadres and masses in the suburbs decided to open up new channels for vegetable circulation. Therefore, a batch of vegetable wholesale markets and collection-distribution depots has been set up precisely in response to such a situation in Beijing's suburbs.

These vegetable wholesale markets and collection-distribution depots in Beijing's suburbs are divided into the pure-service and service-management types. The approach of the former is: build big exchange sheds to provide places for activities of both the buying and selling side; set up purchasing depots at the places of production for the state-run vegetable stations; and directly purchase vegetables from the peasants, concentrate them, and then turn over to the state-run vegetable stations. The expenses involved in their service processes are entirely borne by the concerned townships and communes. The approach of the latter is: provide the buying and selling sides with places for their exchange and collect a small amount of service charges; purchase vegetables from the peasants, and then wholesale to the state-run retail stores, organs, schools, collective mess units or street vendors; and in the meantime these places also set up stalls to sell vegetables themselves. Losses sustained in such a process are subsidized by the townships and communes. Some markets and depots also provide means of production, technical guidance, and thereby become indispensable service outlets in vegetable production.

These vegetable wholesale markets and depots run by the peasants themselves set reasonable prices for their vegetables, let the vegetable farmers obtain cash for their produce, and also provide them with timely market information, thereby mobilizing the enthusiasm of the vegetable farmers in production. For instance, in the case of the third brigade of Zhengchangzhuang Village in the capital's suburb, its output value per mu of vegetable fields the year before last was only 1,574 yuan. Last year, while it was just the end of September, its output value per mu of vegetable fields already reached 2,002 yuan. This year, the village plans to build 55 mu of big sheds and 50 mu of medium sheds more in order to provide more fresh vegetables of fine quality to the market. The building of these markets and depots have also served to improve the vegetable supplies in the capital's market. Take the collection-distribution depot at Shiliuzhuang in the capital's suburb as an example: since they opened their business at the end of June, they have guaranteed a supply of more than 10 varieties of vegetables every day. By the off season of August and September, they even went to counties in remote suburbs and places like Zhangjiakou, Baoding, and Chengde in Hebei Province to purchase eggplants, peppers, peapods, etc., to provide them to the capital market. This approach has been highly welcomed. According to available statistics, since July last year, enterprises, organs and units that went to places like the racetrack alone in the capital's suburbs to buy their vegetables regularly have numbered as many as more than 40.

9255
CSO: 4007/248

SERIOUS WATER SHORTAGE DURING SUMMER THREATENED

HK190315 Beijing CHINA DAILY in English 19 Jun 86 p 1

[Article by staff reporter Wu Jingshu]

[Text] Beijing, a city plagued by perennial water shortages, is facing another water supply crisis this summer, the city government said yesterday.

The daily gap between water supply and demand has widened to 300,000 tons in the city, and the Beijing Municipal Government yesterday announced two sets of rules for penalizing water wastage and rewarding water conservation.

The highest penalty of 50 times the regular fee will be imposed on those who use city water for cooling without recycling it.

Units who let individual users pay their monthly water bills at a fixed amount regardless of actual consumption will also be penalized with a fine of 50 times the fee for an estimated monthly waste of 10 tons of water per user, according to the new rules.

Penalties of 25 to 250 yuan ($8 to 80) per water tap will be leveled on the city's gardening, afforestation and environmental departments if they fail to observe the official ban on using water in the daytime. All public or private users will be required to pay a fine of 5 to 50 yuan ($1.6 to 16) for every tap that leaks water in their houses.

All penalties will be increased at the monthly rate of 20 percent until the cause of penalty has been corrected.

Meanwhile, government units, enterprises or individuals who have contributed to water saved. All those who consume less water than their allowed quotas will be given cash awards for the amount of water they saved.

Both measures are absolutely necessary to cut down the city's water consumption during the summer peak period, especially now that a protracted draught has reduced Beijing's water reserves to a record new low, Huang Jicheng, director of Beijing Municipal Administrative Commission, the man in charge of the city's water problem, told CHINA DAILY.

The municipal government has set quotas for all non-household consumers, Chinese and foreign, starting from this year. The rationed amount for units is 3 to 5 percent less than last year's consumption level, he said.

Huang also revealed that the government is considering setting quotas for Beijing residents. Higher prices will be charged for water consumed over the rationed amount and water within the quota will be cheaper.

Beijing's two main water reservoirs -- Miyun and Guanting -- now have only about 800 million tons of water available, while the city's underground water table has dropped down to 40 meters below the surface, Huang pointed out. In Western Beijing, underground water deposits have dried up in some places.

Beijing's water works can now supply only 1.31 million tons of water per day, a daily decrease of 60,000 tons over last year, Huang said.

But the city's demand for water continues to rise as more people move into new housing, more hotels open and more trees are planted each year.

Beijing's daily water consumption is expected to reach 2.2 million tons on peak days in 1990, an increase of 46.6 percent over 1986 and an annual rate of 7 percent.

With no other water resources available, the only way for Beijing to survive is to use every possible means to cut down its consumption, Huang said.

The city authorities will immediately introduce a new tap valve for all pbulic and private users in Beijing to help conserve water by slowing down the water flow.

Another major possibility is to recycle the 1.8 million tons a day of sewage going into the city's main drain outlet, the Tong Hui River. It has been proposed to build a sewage disposal plant at Gaobeidian, south of Beijing, to recycle 500,000 tons of waste water a day for irrigation and industrial uses, "but this will need an 800 million yuan ($250 million) investment and so is still under study," Huang said.

Beijing must resolve its water crisis, otherwise whether the city is an ideal site for the national capital will be in question, Vice Premier Wan Li was quoted as saying by Huang.

/12640
CSO: 4020/361

GOVERNOR HU PING STRESSES GRAIN PRODUCTION

OW090303 Fuzhou FUJIAN RIBAO in Chinese 16 May 86 p 2

[Text] In his report to the Fifth Session of the Sixth Fujian Provincial People's Congress on our province's draft Seventh 5-Year Plan, Governor Hu Ping emphatically pointed out: The foundation of agriculture in our province is comparatively weak and grain production and marketing cannot be balanced. During the Seventh 5-Year Plan period, we must continue to take agriculture as the foundation of the national economy and take grain production as the foundation of agricultural development. We must pay the greatest attention to doing a good job in grain production.

Hu Ping said: Grain is the base of the foundation and we must pay the utmost attention to it. The Seventh 5-Year Plan sets our annual grain output in 1990 at 9.25 million metric tons. We must make sure that this will be fulfilled. We must do winter farming well, make efforts to increase the multiple cropping index and expand the planting acreage, pay attention to producing grain of minor varieties, and do our best not to import grains from other provinces. We must prohibit illegal occupation of cultivated land, transform low-yielding paddies, build more and manage better the water conservancy projects, pay attention to water and soil conservation, promote intensive farming, and increase the per-mu output. We must adopt and carefully implement various economic policies to encourage grain production and perfect the contract purchase system.

Hu Ping said: We must quickly and adequately readjust agricultural production, make a good distribution of productive forces, make full use of the advantages of mountains and seas, and develop a diversified economy. Forestry is the pillar of the economy of the mountainous areas and a vital factor in the maintenance of ecological equilibrium. It is one of the basics. We must make great efforts to plant trees and afforest land and strengthen the management of existing forests. Felling of trees must be rational. The forest coverage rate and the timber storage rate must be increased. We must develop animal husbandry, making use of and opening up grazing lands, and develop aquaculture, making full use of shallow beaches, reservoirs, and ponds. In this way we can gradually establish bases for producing forest, animal-husbandry, and fishery commodities and various other commodities with local characteristics to provide the domestic and foreign markets and the processing industry with plenty farm and sideline produce of infinite variety.

Hu Ping pointed out: Town and township enterprises are the only way to invigorate the rural economy. They can take much of the surplus labor force of the countryside and, more importantly, help the masses free themselves from poverty and become well off. During the Seventh 5-Year Plan period, we must make gigantic efforts to develop household businesses and production-related businesses, establish various specialized commodity markets, and promote the development of the rural commodity economy. We must increase our agricultural input through various levels and channels, step up the building of basic agricultural facilities, accelerate the agricultural technical transformation and importation, improve the conditions for production, and increase our ability to combat natural disasters. We must mobilize all trades and industries to energetically support agriculture and provide it with all necessary materials, technical knowhow, and services in order to quicken agricultural development.

/8918
CSO: 4007/431

FUJIAN

BRIEFS

FRUIT OUTPUTS--Based on data provided by relevant departments, fruit output in Fujian in 1985 increased 22 percent over 1984, and reached 294,000 tons for the first time. Orange output was 103,000 tons, longan output was 57,500 tons, banana output was 42,500 tons, an increase of 22 percent, 91 percent, and 82 percent respectively over 1984. In addition, watermelon output reached 234,000 tons. [Excerpt] [Beijing ZHONGGUO SHANGYE BAO in Chinese 15 May 86 p 2] /8309

CSO 4007/434

LARGE INCREASE IN PEASANT INCOME REPORTED

Guangzhou GUANGDONG NONGMIN BAO in Chinese 11 Dec 85 p 1

[Report by Bingsong [3521 2646] and Xiaoye [2556 0673]: "Sample Survey Results of over 1,600 Peasant Households Indicate Income Has Greatly Increased in Recent Years in Guangdong; 1984 Provincial Per Capita Average Net Income Amounted to 425.3 Yuan; an Increase of 1.2 Times over 1978 with Yearly Average Increase of 14.1 Percent; Unprecedented in the History of Our Province"]

[Text] According to results from a sample survey of 1,699 of the province's peasant households by the provincial bureau of statistics, in 1984 the average per capita net income (with expenditures such as production cost, levies, assigned amount submitted to the collective deducted) in the countryside reached 425.3 yuan, an increase of 1.2 times over that of 1978 with a yearly average increase of 14.1 percent and an actual increase of 38.7 yuan (whereas during the 20 years from 1956 to 1976, the per capita increase in accumulation was only 45.6 yuan). Peasant income thus has increased by large margins for several years in a row; this is unprecedented in the history of our province.

According to analyses, there are two rather conspicuous reasons why peasant income has increased steadily. One is the practice of the joint production responsibility system based on family management, which has considerably mobilized the enthusiasm of the vast ranks of the peasants in production; family management has become the principal source of the family income of the peasants. In 1984 the net income of family management on the part of the peasants (including income from contracting collective tasks and family sideline enterprises) averaged 333.6 yuan for each person, making up 78.4 percent of their total net income. The second is the state's readjustment of its relevant policies to make it possible for family sideline production in the countryside to gain rapid development; some of the peasants have engaged themselves in handicrafts, construction, communications and transportation, commerce, food and service trades and the like with their surplus laborers and labor time. Last year, the family sideline production income of the peasants averaged 180.9 yuan for each person, an increase of 1.4 times over that of 1978.

Sample survey results also indicate that our peasants have already changed their singular uniform accounting of the past (single distribution at year's end) to multi-channel income; this made possible the emergence of a conspicuous improvement in the condition of tight money. In 1984, the per capita average cash income of people in the countryside amounted to 387.5 yuan, making up 68.7 percent of their total income; their per capita average cash income was 32.3 yuan per month, an increase of 2.5 times over that of 1978. The increase in cash income not only enabled the livelihood of the vast ranks of our peasants to improve, but their accumulation also continued to increase. In 1984, per capita cash on hand and savings deposits amounted to 145.2 yuan, an average of 869 yuan per household.

9255
CSO: 4007/248

BRIEFS

BANANA OUTPUT--Last year, the area sown to bananas in Guangdong was more than 3,170,000 mu, a nearly 30 percent increase over 1984; output was 250 million kilograms, a more than 30 percent increase over 1984. This year the estimated gross output will exceed 300 million kilograms, a more than 20 percent increase over last year. [Excerpts] [Guangzhou GUANGDONG NONGMIN BAO in Chinese 14 May 86 p 2]

CSO: 4007/436

HEBEI

BRIEFS

FEED OUTPUT--In the first quarter of 1986, Hebei produced 1,283,280 tons of feed, an increase of 75 percent over the same period last year; the industrial gross output value was 42,240,000 yuan, an increase of 46.5 percent over the same period last year; profits increased 81 percent over the same period last year. Of total sales, the proportion of compound feed increased from 52 percent last year to 60 percent; of gross output, mixed feed increased from 41 percent last year to 53 percent. [Excerpts] [Beijing ZHONGGUO SHANGYE BAO in Chinese 29 May 86 p 3]

CSO: 4007/447

HUBEI HOLDS CONFERENCE ON COMBATING DROUGHT

HK060945 Wuhan Hubei Provincial Service in Mandarin 1000 GMT 5 Jun 86

[Excerpt] This morning, Guo Zhenqian held a further conference on combating drought to listen to the reports on the drought situation.

The conference stressed: All places and departments concerned must really establish the idea of combating serious drought over a long period of time, take further resolute measures, and try in every possible way to combat drought to strive for a bumper harvest.

Since the provincial CPC Committee and provincial government issued an urgent instruction on taking vigorous measures to do well in combating drought and crash-transplanting early-rice seedlings without losing any time, CPC committees and governments at all levels and all departments concerned have immediately gone into action and gone all out to wage struggle against drought more extensively and penetratingly. Provincial departments concerned have supplied the areas hit by drought with nearly 120,000 kilowatts of electric power and some 30,000 tons of diesel oil. All prefectures, cities, and counties have taken resolutely measure accordingly and offered some 280,000 kilowatts of their electric power for use in combating drought. At present, some 70,000 cadres and approximately 5 million workers throughout the province have plunged into combating drought, a total load of some 400,000 kilowatts has been used to combat drought, and diesel engines of some 1.5 million horse-power have also been used. Due to continuous high temperatures, the drought situation has gradually deteriorated. The area of crops hit by drought has reached some 23 million mu, which accounts for half the crops in the fields.

In the light of the continuous development of the drought situation, the provincial government has made further arrangements for combating drought, which are mainly as follows:

1. It is, in principle, necessary to guarnatee the supply of electricity for use in combating drought. We must first reduce by 10 percent the electricity load of the large enterprises and use it to combat drought. These units must bear in mind overall situation and support the rural areas in combating drought to strive for a bumper harvest.

2. The central oilfields and oil refineries in our province must support the areas which have been seriously hit by drought by giving priority to the supply of some or the majority of their diesel oil. The provincial petroleum company must additionally appropriate 30,000 tons of diesel oil around 10 May.

3. Supply and marketing departments must immediately supply chemical fertilizers ahead of the specified schedule so as to guarantee that the farming season is not missed.

4. In the wake of the development of the drought situation, the work of combating drought will become harder and harder. All places and departments concerned must make good preparations for combating drought.

/8918
CSO: 4007/431

SIX MEASURES TO STABILIZE PORK PRICES IMPLEMENTED

Changsha HUNAN RIBAO in Chinese 18 Feb 86 p 1

[Article by Li Ling [2621 7117] and Wan Weixing [5502 5898 2502]: "The Provincial Government Has Decided To Adopt Six Economic Measures To Stabilize Pork Prices and To Improve the Purchase and Sale of Swine"]

[Text] After the swine procurement quota has been canceled and price restrictions have been removed, how can we improve the purchase and sale of swine? The provincial government recently summarized the implementation situation over the past year and devised new regulations. Six cities in the province can apply procurement contracts this year and exchange grain for swine. (For each mature swine, the state will give the farmer credit for 200 jin of average-priced grain.) Cities can regulate pork prices, restrict prices, and provide appropriate subsidies to ensure a relatively stable urban pork supply.

The provincial government has demanded that pork sale prices be stabilized at present levels this year and not be increased. They hope to gradually resolve seasonal differences in pork prices and also price differences between fat and lean pork. Because of this, the provincial government has decided to adopt six economic measures: 1. Allocations of feed grain made last year for swine exchanges were good for 2 years. It can continue to be used this year. Exchange methods can be determined at the local level. 2. After receiving permission from the county (city) government, swine used to supply local markets or to adjust the supply in different cities within the province are not subject to product or business taxes. Local pork used to supply city markets are not subject to business taxes. Pork used to supply other provinces will be subject to taxes. 3. Industries created from the state-run meat sector will not receive contract fees. Within the system, fees for using fixed assets and depreciation funds will not be transferred to revenue but will remain under their control and available for their own use. 4. Swine sold by the state-run meat sector are not subject to the market management fee. 5. Storage expenses for frozen meat covered by this year's plan for all cities will be calculated according to last year's levels. The provincial Finance Department will provide further information. 6. Banks should supply loans for the funds required by the state-run meat sector to establish new businesses.

13015/9190
CSO: 4007/360

CHANGES IN AQUATIC PRODUCTION DESCRIBED

Beijing RENMIN RIBAO (OVERSEAS EDITION) in Chinese 15 Feb 86 p 3

[Article by Zhou Zhengeng [0719 2182 0023]: "Ten Big Changes in Jiangsu's Aquatic Products Production; Deregulation of Purchasing and Selling Price, Assigned Purchase System Ended; City and Country People 'Difficulty in Getting Fish' Alleviated, Prices Start to Fall"]

[Text] Since the prices of aquatic products were deregulated and the assigned purchase system ended, there have been 10 big changes in aquatic products production in Jiangsu; the "difficulty in getting fish," which city and country people faced for many years, is being alleviated.

In the past few years, Jiangsu has persisted in reform, and the total output of aquatic products has gone up from the original sixth place among provinces, municipalities, and autonomous regions, to the fifth place. At the beginning of 1985, this province decided to deregulate the prices of aquatic products and end the assigned purchase system, in accordance with the relevant national policies. Experience has proven that the result of these reforms is the infusion of new vitality into aquatic production, revealing a new situation of overall development of aquatic production in Jiangsu. The outstanding changes primarily fall into 10 areas.

1. Aquatic production is showing the largest degree of growth since the founding of the country. Compared with the previous year, in 1985 the total growth in output of aquatic products was 160,000 tons, a growth of 18.8 percent, surpassing by 20.5 percent the goal set in the Sixth 5-Year Plan.

2. The breeding and fishing industries increased production both in freshwater and the ocean. Freshwater breeding output doubled compared to 1980, and increased 32 percent compared to the previous year. Compared to 1980, in Jiangsu there are 4 cities and 27 counties (districts) in which freshwater aquatic products output has doubled 5 years ahead of schedule.

3. There have been major changes in the production structure of aquatic products. The ratio of freshwater aquatic products output to ocean aquatic products output went up from 0.9:1 in 1980 to 1.8:1 in 1985; breeding output's share of total aquatic production rose from 28.4 percent in 1980 to 50.7 percent.

4. Per capita fish consumption has increased. In 1985 there were more than 21 jin of aquatic products per person in Jiangsu, 3 jin more than the previous year. In Suzhou, Wuxi, and other cities, the average actual fish consumption is above 30 jin.

5. There have been fairly big breakthroughs in the development of various bodies of water and coastlines. Besides breeding in ponds, there are 150,000 mu of enclosed fish breeding in large and medium areas of water, a fourfold expansion over the previous year; the areas of rice fields with fish breeding grew 350 percent.

6. High-yield breeding technology from southern Jiangsu is being transferred quite quickly to northern Jiangsu. In some fish ponds in northern Jiangsu, there are high-yield models where the per-mu yield exceeds 1,000 jin.

7. Following the growth of fishing industry production in the province, the variety of fish at all the markets in Jaingsu has increased and the quality is higher. In markets in the past, silver carp "ran the show," but now, black carp, grass carp, bream, crucian carp, and other high-quality fish make up 70 percent of the total fish output at markets.

8. Fish prices are steadily falling. In the fourth quarter of 1985, the overall average prices in Jiangsu for fresh fish fell by 10 percent to 20 percent compared to the first half of the year.

9. There has been fairly large growth in the artificial raising of river crab, soft shell turtle, fushou [4395 1108] snails, and other special aquatic products.

10. There have been large-scale increases in the production of Gorgon fruit, lotus root, and other cash crops grown in water.

12919/9190
CSO: 4007/311

RURAL TECHNOLOGY MARKET RESULTS REPORTED

Beijing NONGMIN RIBAO in Chinese 18 Mar 86 p 1

[Article: "Jiangxi Is Quickly Guiding Science and Technology Toward the Countryside, Obtaining Outstanding Results from the Rural Technology Market; 62.57 Million Yuan Worth of Composite Social and Economic Benefits Were Created in 1985, About 20 times the Amount of Scientific and Technological Investment"]

[Text] In order to guide science and technology toward the countryside, Jiangxi's Science Commission began in 1984 to establish a provincewide rural technology market. At present it has grown to encompass 98 counties (or administrative areas), accounting for 88 percent of all Jiangxi counties (or administrative areas). In 1985, 62.57 million yuan worth of composite social and economic benefits were created, about 20 times the amount of scientific and technological investment.

All over Jiangxi the core of the technology market is the county, which connects above to the province and region and below to townships and villages. Each market utilizes a combination of administrative means and economic leverage to enlist the services of talented people from social and scientific research units and institutions of higher education. They collect technology and vitalize rural economic services by organizing technological service teams and technological training, and by establishing economic associations between technology and production. For example, Longnan County Science and Technology Market called together over 60 scientists, technicians, and skillful craftsmen and organized 7 technological service teams, each with a different specialty, to go out into the countryside. Of these, the Technological Service Team To Transform Low-yield Orchards had 33 members, and they signed service contracts on nearly 30,000 fruit trees grown by 332 fruit-farming households. That year, through technological reforms--pruning, cultivation, fertilization, insect eradication, and disease treatment--the per-mu yield in Chinese chestnut orchards increased 50 percent over the previous year, and the per-mu yield in citrus orchards rose 130 percent. In Ganzhou Prefecture the technology market conducted a technical training class on pond milkfish breeding, and more than 3,200 people attended the class. After the students left the class they set off a surge of enthusiasm for raising pond milkfish. In 1985, 2.4 million-plus jin of milkfish were harvested throughout the prefecture. A collective of only four or five people set up shop as the

Ningdu County Chalk Factory and suggested the trial manufacture of dust-free chalk. However, they lacked the technology, funding, and equipment for the job. Ningdu County Technology Market sent out technical personnel, invested 13,000 yuan, and entered into joint operation with this plant to develop the product. Now this plant has grown into a new-style small enterprise employing 47 people. Its product sells well in Ruijin, Yudu, and other counties, and has also broken into the market in Nanchang, Shanghai, and other regions. In 9 months of 1985, this plant reached a production value of 95,000 yuan and achieved a net profit of 25,000 yuan. According to statistics, in 1985 Jiangxi's rural technology market launched 40,690 technological service projects (or instances) of all sorts, trained more than 15,000 youth, established 112 technical economic associations of various kinds, and imported and transferred 373 technical items.

In order to enhance guidance of rural technology markets and arrange coordinated efforts, the Jiangxi provincial government has formulated provisional methods for managing technology markets, and they have also recently approved the establishment of a provincial technological market development center.

12510
CSO: 4008/2100

JIANGXI

BRIEFS

FISH, CATTLE RAISING FUNDS BOOSTED--Nanchang, 21 June (XINHUA)--East China's Jiangxi Province will use foreign loans and aid totalling 45 million U.S. dollars this year to speed up fish breeding and the development of pastures for animal husbandry. An official of the provincial Agricultural Development Company said today: The World Food Program has agreed to provide us with aid in kind worth seven million U.S. dollars to help Jiangxi peasants dig 500 hectares of fish ponds around Boyang Lake." On completion of the ponds by 1988, peasants will net in 5,000 tons of fish annually. Another 2,100 hectares of fish ponds will be dug with 7.71 million U.S. dollars in a loan extended by the World Bank in the suburbs of the provincial capital of Nanchang. When completed by 1989, the ponds will produce 10,000 tons of fish a year. "We'll receive another 30 million U.S. dollars in a loan from the World Bank to build 20,000 hectares of livestock farms and fruit plantations in eastern Jiangxi," he told XINHUA. By 1996, the facilities will produce 150 million yuan worth of milk, meet, eggs and fruit, and earn 34 million yuan in profits a year. The World Bank is expected to ratify the two loan agreements later this month. [Text] [Beijing XINHUA in English 0933 GMT 23 Jun 86] /12640

CSO: 4020/361

PROVINCE TO BUILD FARM EXPORT CENTERS

OW190610 Beijing XINHUA in English 0542 GMT 19 Jun 86

[Text] Shenyang, 19 June (XINHUA) -- Liaoning Province in northeast China plans to invest 360 million yuan in constructing farm export produce centers during the 1986-90 period, according to an official.

Zheng Silin, assistant governor, told XINHUA here today that these production centers will export rice, corn, sesame, peanut, silk, asparagus, apple, prawn, jellyfish, ginseng, antler, mink, live cattle, goat, fungus, hawthorn, geese, ducks and pork.

The province has sound infrastructure facilities for research, production, processing, and transportation of the export products, he said.

The province, which now exports 80,000 tons of rice a year, plans to expand cultivated areas to 6.7 million hectares and export 150,000 tons of rice annually by 1990. Rice produced in Liaoning is popular on the international market.

Apple is another Liaoning product which ranks first in both output and exports. The province is now disseminating the fine strains whose fruit is fragrant, sweet and crisp.

Marine farming has a great potential for development, Zheng said. Liaoning has a coastline extending 2,800 kilometers with 110,000 hectares of shallow water for breeding prawn, jellyfish and other aquatic products. Its current output of prawn accounts for one-third of China's total cultivated prawn and exports of jellyfish make up 80 percent of the total.

Liaoning is also one of seven major cattle exporters which exported more than 10,000 head of live cattle in 1985.

The official expects that the farm produce will earn 510 million yuan, compared to the planned 210 million dollars earned this year.

/12640
CSO: 4020/361

NINGXIA

BRIEFS

NINGXIA IRRIGATION FACILITIES--Yinchuan, 9 Jun (XINHUA)--Peasants in the Ningxia Hui Autonomous Region have brought 36,000 hectares of farmland under irrigation since October last year, an official of the regional water conservancy office said here today. In addition, they improved or reclaimed 8,400 hectares of low-yielding fields and wasteland. Over the past 8 months, local peasants repaired 65,000 canals and ditches with a total length of more than 8,000 kilometers and added 6,500 facilities for small irrigation systems. [Text] [Beijing XINHUA in English 0938 GMT 9 Jun 86] /9604

CSO: 4020/359

USE OF NEW STOCK URGED TO IMPROVE CATTLE INDUSTRY

Jinan NONGYEZHISHI [AGRICULTURAL KNOWLEDGE] in Chinese, No 1, 5 Jan 86 pp 11-13

[Article by Feng Desheng [7458 1795 4141] of the Animal Husbandry Institute, Shandong Academy of Agricultural Science: "Great Future for Cattle Improvement"]

[Text] Cattle raising in Shandong is still in a depressed state. One factor is the slow growth, According to statistics, Shandong only has 2.3 million head of various kinds of cattle, 7 percent less than in the first period after the founding of the country and 14 percent less than in 1955, the year in which the most cattle were raised. The second factor is lopsided growth. Shandong currently has 2.2 million head of local breeds of cattle, which account for more than 98 percent of the total number of cattle, there are almost 40,000 water buffalo, accounting for 4.3 percent. There are barely more than 10,000 dairy cows, which comes to only one cow for every 7,000-plus people in Shandong. The third factor is the commodity rate is too low. According to surveys, cattle raised in agricultural areas are used for only 2 to 3 months out of the year. One head of beef only produces about 75 kg (150 jin) of beef. The milk produced by cows is only enough to feed the calf. The fourth factor is the shortage of milk and beef. At present, the average amount of milk per person in Shandong is 0.25 kg (0.5 jin), and for beef it is less than 0.1 kg (0.2 jin) How can we take effective measures to raise the cattle commodity rate and economic efficiency so that raising cattle can truly become a way for peasants to become prosperous? Below we will discuss several ideas.

1. Practice Improvement in Accord with Local Conditions

Cattle improvement means using the method of "change" to achieve the goal of "good." For many year, cattle have been bred within the same breed, with the result that it takes a long time and results are poor, leading to small bodies, weak working ability, and relatively low milk and meat production. Improvement through use of other breeds is an effective way to hasten the development of cattle raising. Take the example of dairy cows being used to improve regular cattle; experience everywhere has proven that cows in the first generation from the cross can generally yield 1,500-2,000 kg of milk in the full milk production period; the second generation from the cross can produce more than 3,000 kg of milk. By the third generation of breeding, milk production capacity is basically the same as purebred dairy cows. The meat yield of hybrid cattle has also been significantly increased: one head can produce 115 kg (230)jin) of meat, more than 50 percent higher than regular cattle. Hybrid cattle have large bodies and are very strong; their draught ability is increased more than 50 percent. By using purebred beef cattle to improve regular cattle, the draught ability and the meat yield can also be increased. Every location can, based on its own conditions and strengths, adopt feasible measures to accelerate the improvement of regular cattle. For example, the suburbs of cities and small towns and developed industrial, mining, and coastal areas can actively bring in purebred dairy cattle breeds to carry out improvement; the many agricultural areas can, based on local transportation conditions and the capacity to process products, bring in dairy, beef, or combined dairy-beef breeds to carry out improvement; mountain areas or border areas should bring in beef cattle breeds to improve regular cattle; areas with concentrations of water buffalo can bring in high-quality water buffalo breeds to carry out improvement. Only by continually bringing in high-quality breeds and improving one generation after another will it be possible to achieve in the near future good results in breeding excellent dairy, beef, and draught cattle.

II. Select Good Improvement Parental Stock

Improvement parental stock and the goal of improvement are intimately connected; taking the present and future into account, it will not work to make dairy production, meat production, or draught ability the sole goal of improvement. It is necessary to proceed from reality and make it clear that the improvement of cattle should focus on dairy and beef production but also consider draught ability, so that the cattle can be worked during the busy season on the farm, be milked in the less busy months, and be used for meat when they are old; this is economically practical and is welcomed by the masses. Choice of the parents for improvement is the key to doing improvement properly; based on Shandong's present resources of stud bulls (including frozen semen), we suggest the following choices: for improving regular cattle with an emphasis on milk production, it is best to use Holstein dairy cattle, but it is also possible to cross with Holstein breeds and Simmental breeds in alternating generations. To improve regular cattle with an emphasis on beef production, one can choose to cross with Limousin, or one can also first cross with Luxi [Western Shandong] cattle for one or two generations, and then use Limousin or Summental for a three-parent cross; in mountain areas, besides crossing with Limousin and Charolais, it it also possible, when appropriate, to bring in Hereford and dual-use shorthorn cattle for crossing. Mela [8010 2134] and Nili [1441 6849] can be brought in to improve water buffalo. Experience has proven that choosing improvement parents in this way can achieve relatively ideal hybrid vigor and bring fairly good economic results.

III. Make Greater Use of Frozen Semen in Breeding

Many production, scientific research, and educational units in Shandong have been developing frozen semen breeding technology for many years and have accumulated considerable experience; this provides favorable conditions for further developing cattle breeding improvement. However, there are still several problems with forzen semen breeding: for example, full use is still not made of equipment, the frozen semen conception rate is not high, etc. From now on, we must make full use of equipment, provide sufficient high-quality frozen semen granulation, consolidate and strengthen local semen delivery stations and points, strengthen the technical training of breeding personnel, and improve the technical level. In frontier mountain areas and areas with poor and incomplete transportation conditions, in order to prevent cows not being pregnant, we can use the method of normal temperature breeding integrated with crossing of local breeds; we should also actively support "breeding speciality households" and expand the scope of breeding. No matter what breeding methods are adopted, they should all be carried out according to plan, and strict measures must be taken to avoid uncontrolled mating and excessive breeding.

IV. Strengthen the Rearing and Management of Hybrid Cattle

The abundance of nutrients and reasonable rearing and management has very important bearing on whether the improvement results are good or bad. If there is not enough forage grass and fodder and the rearing and management is poor, not only will the excellent characterists of the improvement parents not be expressed, the progeny may even lack the local cattle's tolerance of coarse fodder and be less able to adjust to bad conditions. Therefore, to improve cattle properly, it is essential to provide high-quality forage grass, make full use of agricultural products and byproducts, make greater use of corn stalks for silage, and mix feed properly. In particular, the rearing and management of pregnant cows, calves, and improvement stock must be strengthened, they should be frequently put out to graze in the summer and fall, in winter and spring they should be given more supplemental feed, they should not be overworked, and attention must be paid to the prevention of epidemic diseases, in order to ensure the cattle's physical condition.

12919/9190
CSO: 4007/311

REVITALIZATION OF TOBACCO PRODUCTION, SALES

Shanghai WEN HUI BAO in Chinese 15 Mar 86 p 1

[Article by newspaper reporter Sun Zhonglian [1327 0022 6647]: "Tobacco Production and Sales Have Been Simultaneously Revitalized; the Shanghai Tobacco Industry Has Broken the Mold and Established Communication with Other Areas; They Have Established Sources of Raw Materials in Guizhou and Henan and Have Implemented Cooperative Production Arrangements with 15 Tobacco Factories in 9 Provinces; Last Year, More Than 300 Million Yuan Was Produced for the State"]

[Text] During reform of the economic structure, the Shanghai tobacco industry has broken its longstanding closed style of production and management. Viewed from the standpoint of supply, production, and sales, they developed comprehensive economic cooperation with other brother provinces and cities. At the present time, sources of raw materials have been established in four major tobacco-producing areas in Guizhou and Henan. Coordinated production arrangements have been implemented with 15 tobacco factories in 9 provinces. Last year, the increase in production resulting from cooperative management equalled 6 months' production by Shanghai cigarette factories. The sources of raw materials supply 60 percent of all tobacco leaves required. Shanghai tobacco industry practices have supplied the experience required to expand production and increase profits for Shanghai industrial enterprises.

The cooperative management arrangements in the Shanghai tobacco industry began in 1982. At that time, the most significant problems facing the industry were lack of factory space and productivity that had reached a plateau at the same time that market demand continued to increase. Shanghai cigarette factories took advantage of their technical management expertise and product reputation to coordinate processing with the Wuhu cigarette factory. This cooperation produced results very quickly, not only increasing the amount of Shanghai's famous brand tobacco that reached the market, but also increased the profits of both cooperators. In 1984, the newly formed municipal tobacco company immediately summarized the experiences of the tobacco factories. Based on the principle of "accentuating your strengths, avoiding your shortcomings, and being willing to allow both sides to profit," they began to coordinate with more than 10 tobacco factories in Guangdong, Guangxi, and Jiangsu provinces and produce famous brand tobacco that sells rapidly in the market place. The cooperative management also progressed from raw material processing to cooperative production, supervision, and technical assistance. These multiple economic cooperative arrangements allowed the Shanghai tobacco industry to escape from a passive production situation, and their profits have greatly increased. Last year, production of the cooperative management reached 460,000 boxes. Revenue for the state increased to 300 million yuan, among which technical service charges were nearly 10 million yuan.

Lack of unprocessed tobacco leaves is another problem that the Shanghai tobacco industry has faced in recent years. In particular, medium- and high-quality tobacco has been in very short supply. Although millions of yuan in foreign currency have been used for imports every year, production demands still cannot be satisfied. In order to solve this problem, the Shanghai tobacco industry has tried very hard to develop horizontal economic cooperation arrangements with other tobacco-producing areas. They have established a 350,000 mu source of tobacco production in Henan, Shandung, Yunan, and Guizhou and signed exclusive supply contracts. They have invested more than 10 million yuan and are cooperating with the relevant local sectors in these areas to select high-quality varieties, train personnel, transport fertilizer, apply S&T to help tobacco farmers increase planting standards and production of high-quality tobacco. Last year, the selection rate of medium- and high-quality tobacco leaves per dan increased 10-fold in tobacco from the exclusive supply sources in Xiangcheng, Henan. This provided high-quality raw material for Shanghai cigarette factories to produce high-quality tobacco such as the "Panda Bear" and "China" brands.

As far as sales are concerned, the Shanghai cigarette industry has formed a Shanghai tobacco trading center together with the China Cigarette Sales Co. Under this cooperative management, production and sales are combined, but accounting is independent. In addition to managing Shanghai cigarettes, this trading center also handles cigarettes and cigars produced by major tobacco factories nationwide. Management involves setting allocation, wholesale, and distributor prices. In order to learn about the marketing situation in the south, they have established a sales window in Shenzhen. Within the Shanghai municipal area, the trading center has established a wholesale market whose management is coordinated with eight other areas. This permits a retail network of more than 10,000 households in Shanghai to purchase their stock directly. This action has greatly simplified the steps involved in distribution and revitalized transportation channels. In the past, cigarette sales depended upon planned adjustments and a level-by-level wholesale style.

13015/9190
CSO: 4007/360

CURRENT PLANS FOR GRAIN PLANTING LISTED

Taiyuan SHANXI NONGMIN in Chinese 8 Mar 86 p 3

[Article: "What Types of Grain Should Be Planted This Year?"]

[Text] At the present time, grain in China is in short supply. Per capita grain consumption in Shanxi is lower than the national average. The quantity and variety of grain produced still does not meet society's demands. A long-term, vigorous effort is necessary, and even a slight relaxation of this effort cannot be tolerated.

Therefore, at the same time as all areas are stressing grain production and maintaining the increase in total grain output, the balance of grain varieties must be adjusted based upon market demand. Production of the following major varieties must be emphasized:

1. Wheat: Following the recovery and development during the past several years, wheat production in Shanxi is more than one-third of total grain production. It still, however, cannot meet the demand, and large amounts must be imported from other provinces. The climate and geographical conditions in many southern counties, a majority fo the counties in Jinzhong and Jindongnan prefectures, and (Pingchuan) County in Luliang Prefecture are suitable for winter wheat production. These areas should fully realize their production potential and strive to expand planting areas and increase yields. In order to stabilize high production, special emphasis should be given to selection and promotion of high-quality varieties and increasing the investment in fertilizer. Farmers in northern areas of Shanxi Province should be actively encouraged to expand planting of spring wheat wherever conditions are suitable and increase production.

Wheat prices in all markets have generally recovered since last year. Stable or slightly increased prices are forecast for this year. Farmers in all areas can confidently proceed to expand production.

2. Corn: The state has assigned Shanxi a corn export quota of 500,000 tons. This is a nine-fold increase over last year and is one-fourth of total corn production in Shanxi. We must export 250 million kg of corn in order to compensate for the wheat shortage in Shanxi. Demand for corn to be sold or used for animal feed will increase strongly this year.

Therefore, the corn-planting area in Shanxi should not be decreased this year. There should be an adequate recovery in locations where the planting area was significantly reduced last year. Major production areas, especially northern and middle regions and Jindongnan Prefecture, should take full advantage of favorable local conditions, stress corn production, and ensure the increase of corn production in Shanxi.

3. Soybeans: Demand for soybeans in Shanxi has increased yearly. This year Shanxi has named soybeans as a fixed-procurement grain. For soybeans not covered by procurement, the grain sector will be actively negotiating purchase at the local area. All areas must pay particular attention to soybean planting. Major producing areas, such as Luliang Prefecture, Jinxibei, and Jinbei should increase their planting areas and increase procuctinn.

4. Sorghum: After the proportion of more desirable grain in the total supply for township residents has increased, the area planted in sorghum for human consumption has decreased. The amount of sorghum used for production of alcoholic beverages or export to other provinces, however, has continually increased. The amount of sorghum purchased through contract procurement and negotiated procurement is approximately the same this year as in 1984. Therefore, the sorghum-planting area should not be arbitrarily increased. Major production areas in the middle of Shanxi and along the Fen Cer should work to increase yields and ensure a steady increase in production.

5. Millet: During the past few years, millet purchases in Shanxi have been greater than sales. Therefore, millet storage has increased. Sales within Shanxi are mainly used to adjust the amount of grain for consumption. Because millet is not a familiar food, sales outside Shanxi are poor. Farmers should adjust millet planting in accordance with contract procurement and their own needs. Major producing areas in Jindongnan, Yenbei, and Jinzhongdong should improve well-known varieties and increase their quality.

6. Other grains and legumes: Rice production should be expanded as natural conditions permit. Major production areas in the southern suburbs of Taiyuan and Fanshi must carefully maintain their planting areas, increase yields, and ensure the completion of state contracted procurement plans. Consumption of naked oats varies from region to region, and production should not be expanded beyond the amount required for local consumption and to fulfill contracted procurement. Purchase of other grains whose procurement is not fixed should be continuous and open. Based upon market demands, the grain sector should conduct negotiated purchases and sales. Production of such grain should be arranged on the basis of market supplies and demand. According to the current situation, mung bean production should be continuously expanded. As beer production expands, the demand for barley will increase. As far as red bean and lima bean planting areas and varieties are concerned, production and demand must be carefully balanced. Units which use these legumes must contact farming households directly and sign contracts before the spring planting season. They can also purchase through the grain sector to avoid dislocations.

13015/9190
CSO: 4007/360

SHANXI SILKWORM, MULBERRY TREE PRODUCTION VIEWED

Taiyuan SHANXI NONGYE KEXUE [SHANXI AGRICULTURAL SCIENCES] in Chinese No 12, 20 Dec 85 p 29

[Excerpt] State of Silkworm and Mulberry-tree Production Since Founding of the Republic

In 1955, governments at various levels in our province began to get a handle on silkworm and mulberry-tree production enterprises; by 1958 such mulberry-tree planting and silkworm-raising enterprises in the province had developed from 20-odd to 40-odd counties. But because of the 10-year catastrophe of the "cultural revolution," mulberry tress were destroyed in favor of foodgrain planting; in addition, inferior mulberry trees were mixed among the good and silkworm diseases also prevailed in general; technical laborers were few and little attention was paid to management, so that cocoon production decreased year after year, lingering as it did between 115,000-150,000 jin for a long time. There were only some 4,000-odd mulberry trees left.

Since the 3d Plenary Session of the 11th CPC Central Committee, silkworm and mulberry production in our province has really taken-off. Beginning in 1982, the annual cocoon production of the province increased from some 3,000,000-odd jin to 6,000,000-odd jin, with a progressive yearly increase of 500,000-700,000 jin. Today, we have 270,000 mu of mulberry-tree orchard, and our mulberry trees have developed up to 400 million.

Today, silkworm and mulberry-tree production in our province has developed into a form of science-teaching-promotion three-in-one combination. Counties developing silkworm and mulberry-tree production now number 87, making up 70 percent of the total of the province; specialized silkworm-raising households have reached over 25,000-odd in number, with a contingent of specialized personnel numbering more than 30,000. In the meantime, there has emerged 1 district with an annual cocoon production of mopre than 200,000 jin, 10 districts with an annual production of more than 100,000 jin, and 62 districts with an annual production of over 10,000 jin. The agriculture and animal husbandry bureaus of various prefectures and counties (municipalities) have established silkworm and mulberry-tree depots or silkworm and mulberry-fruit depots; individual key prefectures (municipalities) and counties have established silkworm and mulberry-tree bureaus or silkworm and mulberry-fruit bureaus.

The "Shanxi Provincial Silkworm and Mulberry Tree Research Institute" situated in Peijie, Xia County, comes under the direct leadership of the agriculture and animal husbandry division, Shanxi province; it is a center for scientific research on silkworm and mulberry trees in our province. The Institute was established in 1979 on the original foundation of the original silkworm breeding ground of Shanxi Province; it had 137 staff and workers, of whom 21 were scientific and technical personnel of the senior, medium and junior classes; they shoulder the heavy responsibilities of conducting the province's scientific research on silkworms and mulberry trees as well as producing its various kinds of mulberry trees. The institute occupies altogether 853 mu of land, of which 700 mu are for mulberry-tree planting. Beginning in 1958 the institute started to create an original species and a general species; and beginning in 1959 it started to formally produce the two grades of the original and the general species of young silkworms. For 26 years, it has more than 35,000 sheets of eggs of the original species and 95,000 sheets of the general species. These species of young silkworms, apart from meeting the needs of our own province, also supported provinces like Sichuan, Henan, and Shaanxi. The main tasks of the institute today are: selecting and nurturing species of mulberry trees that are suitable for planting in our province and the young silkworms that are suitable for raising in our province, carrying out research in preventing silkworm diseases and research in the planting techniques for rich-yield mulberry orchards, promoting new techniques for raising silkworms, and training mulberry tree and silkworm production technical personnel. Its main results include the 6 silkworm species of 703, 704, 721, 722, 741, and 742, which have already been spread to the whole province. New silkworm species to be immediately promoted are also the 4 silkworm species of Shanxi-1, Shanxi-2, Shanxi-3 and Shanxi-4.

There are in the province 800-odd silkworm and mulberry-tree technical personnel throughout the province; of these over 300 are scientific and technical personnel at the medium level and above and over 600 at the elementary level and above. The Shanxi University of Agriculture and Changzhi School of Agriculture have respectively added in 1981 and 1982 a university-level specialized class and a secondary school-level class on silkworms and mulberry trees.

In order to achieve self-sufficiency in the supply of young silkworms and meet the needs of the vast ranks of the silkworm farmers of the province, the provincial government has also allocated special funds to build 3 new cooperative young-silkworm creation plants which create 60,000 sheets of young silkworms each year; their area of construction amounts to 15,000 square meters. In the meantime, efforts have also been made to build over 30 feeding-prompting rooms in the key silkworm-raising districts and newly opened silkworm-raising counties; their area of construction amounts to 6,000-odd sq m.

The province now has over 10 silk-reeling plants at Yangcheng, Xingshui and commune-run ones; Yangcheng and Xingshui also have 2 silk-weaving mills. Of these, the Gaoping silk-weaving mill is our province's largest; it was built and put into operation in 1963 and became one of the province's key enterprises. The mill's techniques are all of the advanced level in the country; the quality of its products is stable. In 1984, its total output value increased by 28.82 percent over that of 1983; the production of its woven silk products increased by 10 percent. It mainly produces genuine silk and brocade for export to Japan, Hong Kong, and Southeast Asia, where they enjoy a fine reputation.

The Yangcheng silk-reeling mill takes local cocoons as its raw material; the "Plum Flower" brand of products it produces has gloriously won the state's famous-brand gold award as products that can be trusted without inspection for export overseas.

9255
CSO: 4007/248

READJUSTMENTS IN RURAL PRODUCTION STRUCTURE DISCUSSED

Beijing NONGYE JISHU JINGJI [ECONOMICS FOR AGRICULTURAL TECHNOLOGY] in Chinese No 2, Feb 86 pp 11-14

[Article by Huang Peigen [7806 1014 2704], Zi Jingzong [4793 2417 1350] and Chen Yan [7115 7346] of the Sichuan Agriculture and Animal Husbandry Office: "On Readjusting The Structure of Rural Production in Sichuan"]

[Text] In order to distill our experiences in readjusting the structure of Sichuan's rural production over the past 2 years and gear for strategies to come, we conducted a survey in Guanglan, Renshou, and Muchuan counties to bring the situation all across Sichuan together. We offer the following initial suggestions for guiding ideology and strategies for further readjustments in 1986.

Sichuan's rural production is in the process of shifting from a unitary structure to one in which planting, cultivation, and processing are combined and in which farming, industry, commerce, construction, shipping, and services develop as an integral whole. In broad terms, there are three kinds of situations: (1) overall readjustment focused on characteristic features, with attention paid to balancing and coordinating all production sectors for major economic returns. Considerable portions of Sichuan's readjustments have been of this nature. (2) Implementation of partial readjustment in particular areas, even though inadequate attention is paid to some links and economic returns are not as high. This is the most common situation. (3) No movement toward readjustment, but adherence to the unitary agricultural structure and low earnings. This occurs in a minority of situations; and those situations where there have been reductions in income along with reductions in grain yields are even less prevalent. Thus, 1985 witnessed broad advances in readjusting the rural production structure. We have attained results and experience which will open up new avenues for us in continuing the readjustments and accelerating the pace at which we can bring affluence to the countryside.

A Guiding Ideology for Readjustment

I. Delineating a Guiding Ideology: Farming is still the nation's economic basis; and readjustments in the rural production structure are aimed at strengthening this base--not weakening it. We want to bring about a more rational structure of rural agricultural production and division of labor which gradually moves from one centered on planting to one which allows for development of farming, forestry, animal husbandry, sidelines, and fishing across the board. We want to move farming from the central focus and integrate it completely with industry, commerce, construction, shipping, and services, and switch from a focus on production of raw materials to development of comprehensive utilization through basic and intensive processing. This is an inevitable trend and a long-term task for rural economic growth. These features have been determined by the fact that at the present time the agricultural base is unstable and imbalanced. To start off with, Sichuan is situated in the interior. Transportation is difficult and the population is large. Bold steps toward strengthening the farm base and readjusting the structure of rural production must be premised and conditioned on maintenance of stable growth in grain production. Steps taken in 1985 were larger than previous ones precisely because increases in grain yield had been stable for several years and per capita output reached 800 jin.

The critical step in 1986 readjustments is to strengthen ideology and take grain production seriously. If difficulties arise in grain production so that we fall back from providing for the basics of living and the rural economy begins to falter, this will have an impact on the pace of readjustment. On this we must be absolutely clear. First, we must not loosen our grasp on grain output. We must proceed at current levels of agricultural science and techniques to stabilize the amount of area sown in grain and devote all our efforts on improving unit yields. We must assure stable increases in grain output as a whole and promote comprehensive development of diversified operations. If we can just increase material investment, improve production conditions, and combine current agricultural S & T with traditional intensive farming, then there is great potential for improving unit yields. Second, we must optimize breakthroughs in the developing rural economy. Livestock holds second place in gross output value among the five sectors, after farming but before forestry, sidelines, and fisheries. Vigorous development of livestock and poultry production centered on hog raising has an advantage (in abundant feed resources), a foundation (in mass familiarity with animal feeding), efficiency (low investment and rapid turnover), a market (in massive social demand), and the ability to add to the income of the farming masses (over 95 percent of farm households can take part.) Third, initial production must be well-managed. The focus of affirmative development of rural industry and secondary and tertiary production should be on joint household and individual household-run operations at the village or group level, beginning with exploitation of local assets, strengthened technological transformation, and improved management standards. Fourth, if we are to regulate the crunch between supply and demand for cash crops and raw materials for local processing and avoid blind spots as we carry out our readjustments, we must test and assess new methods for integrated readjustment for the structures of both local industrial products and rural production. We must link up readjustments in mainstay local industries with those in planting, cultivation, and processing to establish a commodity-base type of industrial-agricultural system which links town to countryside and village to factory.

II. Implementation of Guidance by Sector: Farm production is highly regional in character. Proceeding from actual circumstances to implementation of guidance by sectors is objectively required by natural law and a precondition for suiting circumstances to local conditions and developing natural strengths. The Sichuan provincial committee has put forward implementation of guidance by sector as a policy, splitting the province into such categories as the hills surrounding the basin, hillside regions, flatlands and levees, and the three zhou (minority areas). But when this policy is brought down to the prefecture, county, or village level, there should be further concrete analysis of local natural and economic conditions and accentuation of unique features which will weigh upon how the structure of rural production is to be readjusted. Renshou County is in the hill region. Grain and sideline materials are plentiful, as are grassy slopes and surface water areas (each of which amount to over 300,000 mu). The needs of its meat, poultry, egg, dairy, and fish markets are great. They made cultivation the breakthrough point for readjusting the structure of production while maintaining a grasp on grain production. Total income from production in the county in 1985 reached 111.34 million yuan--this was 22.9 percent of the total county income, up 3.96 percent. Over the year as a whole, returns were such that both grain and income were up. Looking at the county as a whole, implementation of guidance by sector in readjusting the structure of rural production can be summed up in three facts: grain production was the precondition, ecological balance was the basis, and development of natural strengths was the focus. These factors mutually assisted one another and each of the three proved irreplaceable. This was the only way to attune readjustments to natural laws and bring guidance by sector down to the actual local level.

III. Products Must Have Sales Outlets: The unique feature of commodity production is that production is geared to sales and a product which cannot be sold has no value. Sichuan has seen much growth in rural commodity production in recent years. This was especially true in 1985, when increases in the area devoted to cash crops became large. Several products of a uniquely local and venture nature were developed from small lines into wholesale production. Variety grew along with volume, and there were surpluses for some of them. There were surpluses of various amounts for jute and amberi hemp provincewide, Moyu [7621 5341] in the Wan, Da, and Peiling mountain regions, white ginger in Leshan, garlic in Chengdu, chuanziong rhizome in Guan County, and straight ladybell root in Jintang. All showed surpluses to some extent and selling difficulties. This had somewhat of an impact on farmer enthusiasm for developing commodity production. Taking white ginger from Muchuan as an example, brisk sales and rising prices brought a production jump from 2,836,000 jin in 1984 to over 6 million jin in 1985. Supply exceeded demand and the price plummeted. At the cellar price of 0.50 yuan per jin, losses throughout the county reached 3 million yuan or 15 yuan of income per capita. This demonstrates that development of natural advantages not only has an effect on all sectors, it also relates intimately to such major issues as market supply and demand and laws of pricing, and yet the basic point is still the question of whether products have sales outlets.

IV. Thriving Rural Enterprise Must Be Based Upon Self-reliance: A major issue in readjustment of the rural production structure is to promote development of farm product processing and services. This is because they absorb entry-level farm products and participate directly in the process of transforming rural products into commodities. At the same time, development of industry sets the stage for further development of planting and cultivation. Management of the processing and service industries in these areas will both help to create a more sensible structure of rural production and also avoid any major fluctuations in farm production. Achieving this will involve such issues as money, technology, and raw materials; but the key is money. As of the end of the third quarter of 1985, the province had more than 5,900 projects in the process of development which even after investment of a portion by the masses themselves will still require 600 million yuan (of which half is for equipment loans and circulating funds.) Of these, those which are just short of completion require more than 200 million yuan. Projects in this large group are with labor, funds, and land already deployed; and if they are not taken care of soon, enthusiasm among farmers for developing township and town enterprises will suffer. If this issue is to be resolved, not only must construction priorities be clarified, comprehensive financial arrangements made, and such entrepreneurial methods as guarantees, delays, give up, transfer and release adopted, but self-reliance must become the central focus, opening up multiple channels and enlisting funds from farmers, which is a good method for overcoming the current lack of funds for township and town enterprises as well as a policy which should be maintained from now on for a long time. Practice in all localities has demonstrated that such measures as profit-sharing, concentrating capital for jointly run plants, bringing capital and materials to the workplace, and enlisting capital dispersed among farmers, along with reliance on the potential of finding capital within the enterprise or by oneself are ones which can not only greatly alleviate the crunch between the supply and demand for capital but link up such production elements as capital, technology, labor, raw materials, and equipment into an organic whole, and consequently, place rural enterprises in a less vulnerable position, allow them to achieve stability, and coordinate their development goals.

Strategies and Measures for Continuing Readjustments

The readjustment of the structure of rural production, development of commodity production, adaptation to the market and social demand, and search for the best economic return are endeavors which are broad in their implications, highly scientific in nature, and complex and onerous. Leadership must be strengthened, the whole economy brought together, and macroeconomic regulations and microeconomic revitalizations must be made. But the key is still in the adoption of appropriate strategies and measures to strengthen the production base and improve enthusiasm for planting grain, get a grasp on the various social services which go into developing rural commodity production, and improving production conditions to gradually overcome the factors leading to instability in agricultural production.

I. Upgrading Enthusiasm for Planting Grain: At the present time, there is a segment of the farm community with a tendency to be poor at grain production no matter what the production quota or the land, labor, and capital investment. This is primarily due to the discrepancy between compensation to be derived from planting grain and that from engaging in industrial and sideline industries. "Cheap grain hurts the farmer," but the price of grain is the core of and affects the price of everything. With the present pricing system still unwieldy, compensatory policies in other areas must be done before the price of grain can be adjusted. (1) Strive to reduce burdens on the farmer. The regulation of the provincial committee that the normal farmer burden on pure income is not to exceed that of the previous year by more than 3 to 5 percent must be conscientiously implemented. All necessary assessments should be in tune with the speed of economic development. (2) All unauthorized rises in the price of production materials must be strictly controlled, and no lowering of grades or prices on farm byproducts is permitted. On items supplied in accordance with state-planned distribution, the state list price must be abided by, and no arbitrary price increases are allowed. Those items which are no longer listed are not to be sold, as these will be detrimental to the farmer's interests. (3) The fixed price for grain should be linked to economic methods. Once a farmer has fulfilled a certain number of years of procurement, he will receive 5 jin of urea for every additional 100 jin of grain. The set price for grain purchased in advance should be increased to 0.06 yuan per jin of husked rice and 0.04 yuan per jin of other grains, to be disbursed annually or quarterly. (4) Priority in farm investment loans should be on ensuring those for the development of farm production, and especially those rationally needed for grain produced for state procurement both inside and outside of planning. These should be provided for first; and cash should be disbursed in a timely fashion. (5) In areas where rural industry is rather well developed, a policy of industrial support for agriculture should be implemented, moving away from the present method in some areas of averaged subsidies based on the amount of land contracted for. This is so the amount of subsidy a particular user of the land gets will be contingent on how well the land is managed and how much commodity grain is produced for the state.

II. Managing Pre-Production, Production, and Post-Production Services: Readjusting the structure of rural production is being done to develop commodity production. Every management activity of a commodity producer becomes a specific link and organic part of the output of society as a whole. For this reason, mobilizing and enlisting every hand to provide technical, circulation, and information services before, during, and after production is a pressing issue which must be resolved. (1) Central documents must be conscientiously implemented, gradually turning supply and sales cooperatives into comprehensive service centers, affirmatively developing joint farm-industrial-commercial operations of diverse types, supporting production, opening up sales channels, and promoting high output and brisk sales. This will bring the cooperative and the farmer into an entity with common economic interests which ties the state economy to the farm economy. (2) Join urban with rural areas, farming with commerce, and product processing with commodity production bases. Adopt such methods as urban investment in local enterprises, return of profit to the investor, and technical services which give both parties a share in profits and risks. This will ensure that demand for industrial raw materials will be met, readjustment of the structure of production will be promoted, and blind development of cash crops and local products will be reduced or avoided. (3) Improve the service systems of agricultural departments, moving vertically toward division of labor and sector and toward the gradual formation of a specialized service model, horizontally toward growth of economic integration which keeps old channels upstream open and comprehensively coordinates relationships between various services and systems, and overall toward the establishment of a crisscrossing vertical and horizontal service network. The focus of efforts in farm information services should be on providing information concerning the commodity economy--especially on market prices and changing trends. The focus in technical farm services should be on maintaining and expanding the foundation --such traditional farming practices as intensive farming, scheduled sowing, and timely management--and then on popularizing improved hybirds, ground covers, semiarid cultivation, mixed application of fertilizers, and comprehensive control of pests and diseases. Of special note in this regard are modern agricultural science techniques for controlling seasonal rice diseases and vigorous improvement of unit-area yields. The focus in farm management services should be on improving the output-related responsibility system which links the parts of the countryside to the whole, fortifying and developing the cooperative economy, and assisting farmer--especially the specialized households and joint economic entities--to gain control over management strategies, plan for production, sign economic contracts, improve operational management, and upgrade economic returns. (4) Administrative and public works departments should not be looking to make a profit in providing economic and technical services to farmers. These should be free or low in cost. It is even less permissible to compel farmers to accept such services. The primary-level village service organizations run by and for the farmers under the leadership of county agricultural departments are collective units modeled for operational services, specialization of their work force, and diversified methods of assignment so that they provide effective and low-cost services, the income of which is utilized for wages and for reinvestment.

III. Improve Production Conditions: This is the ground-level task for exploiting the internal potential of agriculture and ensuring farm production. It is both a major current task and the backing for continued increases in production. Sichuan is half paddy and half field. It has a high proportion of mountainous regions and a multitude of terraced and sloping tilled fields. Starting from these features, we should stress the following points:

1. Protect farmland, aggressively transform it, and use it sensibly. We must conscientiously implement the national policy of "cherishing and sensibly using every inch of farmland." All levels of land management departments must realistically investigate and deal with the issue of unauthorized occupation of farmland. They must strictly certify land, investigate and approve land rights, and bring legislative and economic methods together. Reforestation of farmland in mountainous areas must proceed from current levels of grain yield and carried out in a planned way by stages to guard against having to go in the other direction later on. Affirmative efforts must be made in hilly regions to see that development of such economic forests as orchards, mulberry, tung, and quan uses nonfarm lands and as little farm land as possible. Good farmland especially must not be used. Development of pisciculture should use existing waters as much as possible; and paddies must not be abandoned for such purposes. The focus in land construction should be on transformation of cold-weather and low-temperature paddies with assured water supplies, transformation of thin-soil slopes, and prevention of water and soil erosion. Rational land use should be mainly on dissemination of experience in reclamation of arid land to gradually expand the area of "arid three maturations," planting grains serially with other grains, with economic crops, and with fertilizers, upgrading the comprehensive returns on tilled land.

2. We must stress both water conservancy and improved irrigation returns, on the one hand, and flood and waterlogging controls, on the other. Restoration of projects destroyed by man or floods should be a priority. At the same time we must take care of dredging, renovating, and repairing ponds, reservoirs, and channels, large and small, along with water storage and preservation on large areas of fields inundated during the winter. This will assure that the full complement of fields is planted and sown in 1986. Therefore, plans should be centralized and forces enlisted so that labor, tools, and materials needed are sent out on schedule. The water management and utilization responsibility systems should be investigated and strengthened to increase water reserves and expand the area under irrigation.

3. Basic construction development on agricultural fields should be linked up with treeplanting and reforestation for comprehensive control. There should be conscientious management of field construction in concert with planting of trees and grasses and land and soil preservation to preserve balance in ecological relations.

4. Investment in basic construction on agricultural fields should increase. State support in this area has been greatly reduced in recent years, which has not been very beneficial to expansion of this work. Capital accumulation and labor investment by the peasants should be accompanied by increased investment in basic construction on agricultural fields which relies on state and local finances as appropriate.

12303/13045
CSO: 4007/346

FIRST YEAR READJUSTMENT OF PRODUCTION RESULTS VIEWED

Rural Development, Income Increases

Beijing NONGMIN RIBAO in Chinese 13 Dec 85 p 1

[Article by Zhang Shaoguang [1728 4801 0342] and Wu Xiulong [0702 4423 7893] "First Year of the Readjustment of Production Structure; Slight Reduction in Grain Production, Historically Unprecedented High Level of Cash-Crop Production, Continual Development of Animal Husbandry and Township and Town Enterprises"]

[Text] During the first year of the readjustment of rural production structure in Sichuan Province, although there have been slight decreases in total grain production, nevertheless, production of most cash crops have reached unprecedented levels that are the highest in history. Production of rapeseed, jute, and ambari hemp, peanuts, oranges, and tangerines has increased from 1984 to 1985 at increases of 12.1 to 82.2 percent. The development in animal husbandry and township and town enterprises has also continued. The increase in rural income per capita that has resulted from the readjustment of the production structure is 25 yuan.

Sichuan Province has followed both the natural and economic conditions in its flatlands, hilly regions, and mountainous areas. In the emphasis on the regional aspect in its readjustment of production structure, the economy here has naturally progressed at a fast pace to commodity production. The economic level is generally higher in the flatlands. This is largely because in these areas, there is generally balanced coordination among the departments of the various agricultural industries and also in regard to production items. As a result, there has been full-scale development in agricultural crops, animal husbandry, and other industries. For example, Guang'an County which lies within the irrigated area of Dujiang, because of the reduction in its planted acreage during 1985, its total grain production in 1985 dropped by more than 20 million jin from 1984; nevertheless, the average grain supply per capita has been maintained at 1,100 jin. Because of the development of cash crops, the output value of the planting industry has increased by 6.24 million yuan, or 4.9 percent; the increase in animal husbandry production is more than 18 million yuan, or 33 percent; increase in production of township and town enterprises is more than 87 million yuan, or 46.7 percent. The ratio between industry and agriculture in the rural areas has increased from 42.3:57.7 in 1984 to 48.3:51.7 in 1985. Rural industries have, therefore, risen to the second and third levels in the labor force, and the total rural labor force thereby employed has also risen from 30.4 percent in 1984 to 43.5 percent. Renshou County is located in a hilly region. Its grains are planted on hilly slopes by extensive stretches of water. In their grain-growing operation, they have also used animal husbandry as a breakthrough in the readjustment of the production structure. As a result, total grain production has increased by more than 30 million yuan, the average increase per capita being 17.7 yuan. During 1985, 800,000 pigs were slaughtered, an increase of 150,000 from 1984. A new breed of long-haired rabbits has been developed and now they number 30,000. In fresh-water aquaculture, the number of fish has also increased from 5 million in 1984 to 7 million in 1985. In addition, there has also been development in other small domestic animals and fowl. In Sichuan Province, during 1985, total income from animal husbandry reached 22.9 percent of the total income in agriculture, an increase of 3.96 percent.

Muchuan County, which is located in a mountainous area, has properly carried out the economic policy for its terrain. The land in the mountainous area that was not suitable for growing grains has been returned to forestry development. As a result, such resources as those found naturally in the mountainous area have been fully utilized. The timber (also bamboo) industry, papermaking, mining, building material, and special native products industries have all been actively developed. In Yongfu Village, 2,000 mu of formerly planted land has been returned to forestry during 1985, representing 50 percent of the total returned acreage since 1979. There they have also actively developed their assets in timber and bamboo and papermaking. Now, in the village, 51 percent of all agricultural households are engaged in papermaking. In addition, the 27 percent of the entire labor force is engaged in construction and per capita income during 1985 was 338 yuan, an increase of 52.4 yuan from 1984. Because of the development in the mountainous region during 1985, the rural income per capita averaged 321.4 yuan, an increase of 37.6 yuan from 1984; and net income per capita is 221 yuan, an increase of 24.5 yuan from 1984.

Commentary on Rural Structural Readjustment

Beijing NONGMIN RIBAO in Chinese 13 Dec 85 p 1

[Commentary: "Necessity of Persisting in Readjustment of Rural Production Structure"]

[Text] Readjustment in the rural production structure must continue to be carried out with persistence. The result of its implementation after a year in Sichuan Province has been obviously effective. Apart from the slight drop in grain production (due to a number of factors), the production of all the main cash crops have reached historically unprecedented high levels. In addition, both animal husbandry and township and town enterprises have all continued to develop, and the increase in rural income per capita is 25 yuan. Such factual results clearly prove that the direction undertaken for the readjustment of the rural production structure is clearly correct. Its implementation has led to the breakthrough in the natural economy. As a result, the rural economy has begun to adopt important reforms related to professionalism, commodity production, and modernization. Therefore, we should not question the direction of the rural production structure readjustment just because we have not achieved perfect results this year.

The main goal of the rural production structure readjustment is to use agriculture as the foundation and to develop a complementary structural model in which many different types of production will be carried out in mutual coordination. As a result of the cooperation among the essential factors of natural and capital resources, labor force and technology, economic, ecological, and social benefits will follow, achieving a subsequently positive cycle in the rural economy. However, this is an enormous and also extremely complex responsibility with historical implications. The task should continue to be explored, implemented, and made better, developing from the lowest level upward. To wish for immediate success is neither realistic nor possible. We should, therefore, persist and have courage in its implementation, progressing steadily according to plan, thereby avoiding any significant pitfalls.

When some comrades heard about change in only grain production, they carried out diversification and reduced the grain acreage. In doing this, they did not consider either the effect on the economy, the ecology, or society, or the issues of need and feasibility. Thus, they created new structural pitfalls and affected adversely the progress of readjustment. Let us hope that these comrades will change their attitude that is based on their subjective view, and instead think in terms of what is practically possible. Three points should be considered in the rural structural production readjustment. 1) To begin from the factual, according to the local conditions; to develop natural assets and avoid shortcomings; to carry out plans according to natural economic rhythms. 2) To consider the issues of need and the possibility of fulfillment at the same time in implementation, without rushing. 3) To attempt to survive independently, relying on outside help only as supplementary assistance. To carry out the readjustment on these principles and according to the plan is then to be able to grasp the motivating force in achieving continual success.

12740/9869
CSO: 4007/193

SICHUAN

TOBACCO HARVEST BREAKS RECORDS

Beijing NONGMIN RIBAO in Chinese 14 Dec 85 p 1

[Article by Chen Tao [7115 3447]: "Abundant Tobacco Harvest"]

[Text] The entire tobacco harvest (flue-cured tobacco, burley tobacco, and sun-dried tobacco) in Sichuan during 1985 was bountiful. By the end of October, the total purchased amount of flue-cured tobacco in the whole province had already broken the barrier of 1 million dan, a level that is the highest historically.

During 1985, the main tobacco production areas have properly implemented the guidance which the provincial committee has formulated as part of the readjustment of the mountainous rural production structure in stimulating the economy of the poorer regions. As a result, the situation in the production of tobacco has been positively readjusted according to the principle of suitable concentration. Important focuses for the development of tobacco have been designated in the areas of Jinsha Jiang near Liang Shan, the hills above the Yibin basin, the Chuanxiang Highway in Peiling. The production of high-grade tobacco grown in Liang Shan, Yibin, and Peiling has been greatly developed during 1985. In addition, the harvest of flue-cured tobacco has also increased and the total purchased quantity of tobacco in the whole province has fulfilled the projected amount. The harvest of burley tobacco has also fulfilled the projected plan, and in addition, the purchased amount of flue-cured tobacco has risen from 1984.

In the development of tobacco production, the 48 counties that grow tobacco in the province have actively promoted the model concerning growth and technology, thereby advancing both the quantity and quality of tobacco. The harvest of tobacco of middle and high grades in such areas as Liang Shan and Peiling reached more than 70 percent. The harvest of middle and high grade tobacco in the entire province has also risen from 43 percent in 1983 to more than 65 percent in 1985.

12740/9869
CSO: 4007/193

SICHUAN

GOOD BEEF, LAMB SALES MAINTAINED

Chengdu SICHUAN RIBAO in Chinese 6 Dec 85 p 2

[Article by Shen Shixin [3476 2514 0207]: "Beef, Lamb Sales Reported"]

[Text] During 1985, Sichuan Province has maintained a relatively good situation in the sales of beef and lamb. In the first three seasons of the year, the commercial food department purchased 104,000 head of beef cattle, 73,800 head were then sold; 43,200 head of lamb were purchased and 29,300 head were sold. Altogether 4,300 tons of beef and mutton were sent out of the province. It has been estimated that during the four seasons in 1985, more than 80,000 head of beef cattle and 150,000 head of mutton lamb would be purchased, and 9,200 tons of beef and mutton would be sent out of the province. During 1985, cattle and lamb purchases were at the same level as 1984, while sales increased over 1984.

Following reform of the cirulating structure, some new aspects have arisen in the management of cattle and lambs in Sichuan Province during 1985: 1) A change in buyers without a change in the quantity of sales. During the past years, it had been the practice for Beijing and Shanghai to purchase large quantities of the important items, which were also asked for by other regions in quantities larger than they were getting. The situation was, therefore, more buyers, more separate carts, and smaller quantities for display. 2) The recent request has been for greater variety and higher quality. Beijing wishes to have packaged products and smaller packages of beef and mutton. Shanghai and Guandong would like to bring in live beef cattle. 3) Greater flexibility and different types of management, for example, the contract signed between Chongqing and Shanghai in acting as agent in the sale of beef. 4) The popularity of mutton; with insufficient supply throughout the country during 1985; its price has gone up.

12740/9869
CSO: 4007/193

SICHUAN

BRIEFS

NEW RURAL TOWNS IN SICHUAN--Chengdu, 13 Jun (XINHUA)--New towns are rising rapidly in the countryside of Sichuan Province, southwest China, a local official said today. Over the past 2 years, some 200 towns have sprung up, bringing the total to 5,600. The towns are located at places with traffic facilities. They serve as a bond between city and countryside, through which farm produce is transported to the big cities and manufactured goods brought from the cities to the countryside. Datang, on the Sichuan-Tibet highway in Pujiang County, was previously a market. Now it has become an economic and commercial center of four counties, and a link between these counties and the provincial capital of Chengdu. Changsheng town in Baxian County on the outskirts of Chongqing boasts 14 factories, shops, hotels, a bank, a cinema and a stadium along a 2,000-meter street. More than 1,200 peasant households have opened shops there. China is developing towns to accommodate the surplus rural labor force. In Sichuan, 400,000 peasants are now working in factories or engaging in trade and other service work in the newly-built towns. [Text] [Beijing XINHUA in English 0617 GMT 13 Jun 86] /9604

FOOD INDUSTRY--Last year, the output value of the food industry in Sichuan was 9 billion yuan, an increase of 15.2 percent over 1984. The output value of the food industry in 19 counties (cities) exceeded 100 million yuan, which accounted for more than one-half the gross agricultural output value of those counties (cities). [Excerpts] [Chengdu SICHUAN RIBAO in Chinese 24 Apr 86 p 1]

CSO: 4007/436

XINJIANG

BRIEFS

COTTON EXPORTS INCREASE--Cotton exports from the Xinjiang Uygur Autonomous Region in Northwest China last year were almost five times that of 1982. The region became the country's third largest exporter of cotton after it sold more than 20,000 tons to 11 countries and regions in 1985. Cotton accounted for about half of the value of total exports in the region, according to a regional meeting on cotton processing early this month. [Excerpt] [Beijing XINHUA in English 1407 GMT 17 Jun 86] /9604

CSO: 4020/359

AQUATIC PRODUCTION INCREASES DESCRIBED

Hangzhou ZHEJIANG RIBAO in Chinese 4 Feb 86 p 1

[Article by Gan Guorong [1626 0948 2837]: "Joyous Abundance of Fish; Zhejiang Becomes Second Province in China Whose Annual Output of Aquatic Products Exceeds 2 Billion Jin, 50 Jin of Fish Per Capita, 'Difficulty in Getting Fish' Alleviated"]

[Excerpt] Once a Rarity on the Table Now Everyday Fare

Statistics from the provincial Aquatic Production Bureau show that last year the per capita amount of fish in Zhejiang was 50 jin, 7.5 jin more than 1980. Following Guangdong's lead in relaxing the policy on purchase and sale of aquatic products, which enabled the annual output of aquatic products to surpass 2 billion jin, Zhejiang has become the second province in China whose annual output of aquatic products exceeds 2 billion jin.

It is early morning, and I am following the people streaming into the agricultural trade market at Fishsellers Bridge in Hangzhou. At the more than 200 aquatic products stands we find grass carp, bream, silver carp, carp, and other freshwater fish, and seafood, such as yellow croaker, hairtail, razor clam, and blood clam; customers weave their way through the market filled with fish. I went from one to another to ask the price; the grass carp seller said, 1.80 yuan per jin; the silver carp seller said, .90 yuan per jin; the razor clam seller said, .40 yuan per jin. "Last year at this time, grass carp was selling here for up to 3 yuan per jin, and silver carp was 1.60 yuan." The comrade from the market management office told me: "Starting in the second half of last year, there has been a steady supply of fish here, and on the average 10,000 jin of fish are sold every day. We estimate that before and after the New Year, the price of fish will keep going down." Since the deregulation of fish prices, there have been obvious changes in the Hangzhou aquatic products market: "dead fish" used to account for 80 percent of what city-dwellers ate, but now "live fish" account for 90 percent of the consumption; fresh fish jump their way into thousands of households.

Mountains, Ocean Coasts, Rice Fields--Everywhere, Fish Are Jumping and People Are Rejoicing

How can there be so many of these fish all of a sudden? I paid a visit to fishing areas. The most frequent topic of conversation here is last year's Document No 1 of the CPC Central Committee. In the principal producer of freshwater fish, Huzhou City, peasants said: "Document No 1 cut off the ropes that had been binding our hands and feet." Fish production here last year was 93 million jin, a doubling in 4 years.

Making use of the favorable situation created by Document No 1, fish, which throughout history have made their home in ponds and rivers, are starting to climb high mountains and swim into rice fields, opening up new residence areas." In the past, peasants living in mountainous areas would set out a dish of "wooden fish" for the new year, signifying that there will be "good fourtune in abundance; since then, even though there was a real fish in the bowl, scarcity makes things valuable, and no guest would take a piece in his chopsticks, so that one bowl of fish would often be eaten from the first day of the first lunar month until the evening of the 15th day. This time I went to a mountainous area in northern Zhejiang, where I saw that every peasant family there had dug small pits in front of and behind their houses, into which mountain spring water was diverted to raise fish. Last year, fish were bred in 370,000 mu of rice fields in Zhejiang, and a total of 5.5 million jin of fresh fish were harvested.

Last year was right at the beginning of the restructuring of rural production. High fish prices stimulated the production initiative of peasants, who streamed off bearing their hoes to open up barren beaches, coastline, and low-lying fields, where they developed aquatic production and added 100,000 mu in the entire province. Over the yaars, only "wild fish" were sold in Anji, this county of low mountains and hills. Last year, the agricultural trade market for the first time was piled up with fish raised in the peasants' own ponds. Men and women, old and young, from the 72 villages along the coast in Sanmen have all gone to the shore and within a few months they have developed 36,000 mu of shore; last year the output of shore breeding was 31 million jin from more than 50,000 mu of breeding area, 57- and 12-fold increases, respectively, over 1980; the output from aquatic breeding greatly surpassed the amount of seafood that was caught.

In these years, Zhejiang's aquatic breeding output increased annually at the average rate of 20 percent; last year the breeding output was 500 million jin, one-quarter of all aquatic production, and more than twice that of 1980; the breeding area also increased 600,000 mu over 1980.

Water Area Same as in the Past, But Output Can No Longer Be Compared with the Past.

The area of inland ponds within Zhejiang accounts for only 13 percent of the total freshwater area; due to the many people and little land in Zhejiang, it is impossible to dig up fields to raise fish. Therefore, improving the unit fish yield of inland ponds has become a major target in fishing areas. I came to the provincial Freshwater Aquatic Production Research Institute, along the banks of the Grand Canal, where Vice Director Shen Renchun [3088 0088 3196] explained their close cooperation with peasants of Linghu in researching a set of high-yield techniques for inland ponds. This set of techniques includes: released breeding model, bait nutrition, pond reconstruction, management techniques, and complete sets of machinery. It is precisely this set of high-yield techniques which last year raised the average per-mu output on inland ponds in Linghu 200 jin above that of 1984, reaching 1,200 jin. But in the 1970's, the people of Linghu spent all of 10 years and the average per-mu yield was only raised by 100 jin. This set of high-yield techniques is being widely used; last year Zhejiang had more than 52,000 mu of high-yield ponds similar to Linghu, of which there were 1,500 mu where the average per-mu yield was 2,000 jin.

At the same time that the research into high-yield technology for freshwater fish is making breakthroughs, Zhejiang's coastal aquatic breeding is also growing rapidly due to the resolution of a series of technical problems. These include some successes in breeding fry and fingerlings, which deserve first honors. The experimental success in "enclosing the pond to stop the fry" of razor clams changed the previous poor quality and low output of Zhejiang's razor clam fry, enabling the output of razor clams to pass 100 million jin for the first time. The Wenzhou branch of the provincial Aquatic Production Research Institute has successfully bred Japanese true oyster fry in the Qing Liang in Leqing County; every cubic meter of water can produce 50,000 to 80,000 individual fry, up to a maximum of more than 100,000. This provides a source of fry for the large-scale breeding of oysters.

There have also been breakthroughs in the development and use of large bodies of water. The 2.63 million mu of outer marshes, rivers, and reservoirs in Zhejiang account for 76 percent of the total water area. Most of this however, is semibarren, and the output accounts for only 14 percent of total freshwater fish production. Zhejiang's SIT personnel have taken the lead in cultivating and broadcasting seed on this "unexploited virgin land." On the Fuchun Jiang, scientists and technicians from the Hangzhou City Aquatic Production Research Institute have met success in using net-cages to breed high-quality freshwater fish, with per-mu yields of fresh fish exceeding 10,000 jin. In Sanbaitan in Yuhang County, people have experimented with raising fish intensively in fenced enclosures and in sets of net-cages; 200 mu produced 220,000 jin of fish, twice what it was before use of intensive breeding. On the day I went to Sanbaitan, I just happened to find them catching the fish. Old He [0149], the deputy head of the fish farm, gazed at the jumping fish in the nets and said to me with great delight: "In the past we only practiced extensive fish farming, so we didn't put out fingerlings nor did we throw in bait; we just let them live and die on their own. Last year we set out 700,000 weizaikou [1442 0098 1656] fingerlings, practiced mixed breeding of many varieties, increased the breeding density, and improved the water surface use rate."

"The state has canceled centralized assignment of purchases, deregulated the price of fish, and accelerated the growth of Zhejiang's acquatic production," said Bi Dingbang [3968 1353 6721], the vice director of the provincial Aquatic Production Office. He stated: "The aquatic production system in Zhejiang is correcting the ideology guiding the profession and changing our province's fisheries production structure, which used to stress only catching fish; aquatic production and breeding have grown very rapidly." He also felt that Zhejiang till now still has not used well three-quarters of its freshwater area. If fish production on every mu of this water area could be increased by 10 jin, there is great hope that by 1990 the output from breeding could again double.

12919/9190
CSO: 4007/311 END